EESTI STANDARD

EVS-EN 50065-4-7:2005

Signalisatsioon madalpinge-elektripaigaldistes sagedusvahemikus 3 kHz kuni 148,5 kHz ja 1,6 MHz kuni 30 MHz. Osa 4-7: Kantavad madalpingelised eraldusfiltrid. Ohutusnõuded

Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz and 1,6 MHz to 30 MHz Part 4-7: Portable low voltage decoupling filters – Safety requirements

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA	NATIONAL FOREWORD
Käesolev Eesti standard EVS-EN 50065-4-7:2005 sisaldab Euroopa standardi EN 50065-4-7:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 27.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 50065-4-7:2005 consists of the English text of the European standard EN 50065-4-7:2005. This document is endorsed on 27.09.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European product safety standard applies to the filter part of portable devices for household and similar uses (hereafter referred to as portable decoupling filters) consisting of the filter part, a plug or an appliance inlet or a provision for connection by terminals or with a non-rewirable cord and one (multiple) socket-outlet or an appliance outlet.	**Scope:** This European product safety standard applies to the filter part of portable devices for household and similar uses (hereafter referred to as portable decoupling filters) consisting of the filter part, a plug or an appliance inlet or a provision for connection by terminals or with a non-rewirable cord and one (multiple) socket-outlet or an appliance outlet.

ICS 31.160, 33.040.30, 97.120

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EUROPEAN STANDARD **EN 50065-4-7**

NORME EUROPÉENNE

EUROPÄISCHE NORM July 2005

ICS 31.160; 33.040.30; 97.120

English version

Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz and 1,6 MHz to 30 MHz Part 4-7: Portable low voltage decoupling filters – Safety requirements

Transmission de signaux sur les réseaux électriques basse tension dans la bande de fréquences de 3 kHz à 148,5 kHz et de 1,6 MHz à 30 MHz
Partie 4-7: Filtres portables basse tension de découplage –
Exigences de sécurité

Signalübertragung auf elektrischen Niederspannungsnetzen im Frequenzbereich 3 kHz bis 148,5 kHz und 1,6 MHz bis 30 MHz
Teil 4-7: Bewegliche Niederspannungs-Entkopplungsfilter –
Sicherheitsanforderungen

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Foreword

This European Standard was prepared by SC 205A, Mains communicating systems, of Technical Committee CENELEC TC 205, Home and Building Electronic Systems (HBES).

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50065-4-7 on 2004-12-01.

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)	2006-02-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2007-12-01

This safety standard EN 50065-4-7 has no frequency dependent content.

It was originally conceived as a safety document within the EN 50065 set of standards, which have a frequency of 3 kHz to 148,5 kHz.

When the scope of SC205A was extended to 30 MHz, SC 205A agreed that the scope of the published safety standard, EN 50065-4-2, *Low voltage decoupling filters - Safety requirements*, should be amended to include the band 1,6 MHz to 30 MHz in order to cover the additional set of standards for 1,6 MHz to 30 MHz. This required no technical changes to the body of the document.

In addition, it was agreed that Part 4-7, *Portable low voltage decoupling filters - Safety requirements*, should also cover both frequency ranges. For this reason the title of this part of EN 50065 covers the extended frequency ranges 3 kHz to 148,5 kHz and 1,6 MHz to 30 MHz.

When certifying or making declaration of conformity to the Low Voltage Directive 73/23/EEC in order to CE mark the device it is important to state that the CE marking is only valid for the filter parts of the product. The plug parts and socket-outlets parts are not covered by the Low Voltage Directive and shall therefore comply with the relevant national standards.

Structure of EN 50065 series:

Reference	Title
EN 50065	Signalling on low voltage electrical installations in the frequency range 3 kHz to 148,5 kHz
EN 50065-1	Part 1: General requirements, frequency bands and electromagnetic disturbances
EN 50065-2-1	Part 2-1: Immunity requirements for mains communications equipment and systems operating in the range of frequencies 95 kHz to 148,5 kHz and intended for use in residential, commercial and light industrial environments
EN 50065-2-2	Part 2-2: Immunity requirements for mains communications equipment and systems operating in the range of frequencies 95 kHz to 148,5 kHz and intended for use in industrial environments
EN 50065-2-3	Part 2-3: Immunity requirements for mains communications equipment and systems operating in the range of frequencies 3 kHz to 95 kHz and intended for use by electricity suppliers and distributors
EN 50065-4-1	Part 4-1: Low voltage decoupling filters - Generic specification
EN 50065-4-2	Part 4-2: Low voltage decoupling filters - Safety requirements
EN 50065-4-3	Part 4-3: Low voltage decoupling filters - Incoming filter
EN 50065-4-4	Part 4-4: Low voltage decoupling filters - Impedance filter
EN 50065-4-5	Part 4-5: Low voltage decoupling filters - Segmentation filter
EN 50065-4-6	Part 4-6: Low voltage decoupling filters - Phase coupler
EN 50065-4-7	Part 4-7: Low voltage decoupling filters - Safety requirements
EN 50065-7	Part 7: Equipment impedance

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1 Scope

This European product safety standard applies to the filter part of portable devices for household and similar uses (hereafter referred to as portable decoupling filters) consisting of the filter part, a plug or an appliance inlet or a provision for connection by terminals or with a non-rewirable cord and one (multiple) socket-outlet or an appliance outlet. They are intended for single-phase circuits for nominal currents not exceeding 16 A and for nominal voltages not exceeding 250 V a.c. to neutral operating in the frequency range 3 kHz to 148,5 kHz and from 1,6 MHz to 30 MHz.

The filtering functions are described in EN 50065-4-1.

This standard does not cover phase couplers.

Portable decoupling filters shall not be used as part of the fixed installation, where EN 50065-4-2 applies.

Plugs and socket-outlets connected to the filter part and plugs and socket-outlets integrated with the filter part shall comply with the relevant national standard(s).

Appliance inlets and appliance outlets connected to the filter part shall comply with the relevant parts of the EN 60320 series. Appliance inlets and appliance outlets integrated with the filter parts are not covered by this standard.

This standard can be used for portable mains communication devices when no other product standard exists.

This standard can be used for other portable mains filters other than those described in EN 50065-4-1 when no other product standard exists.

Filters including batteries are not covered by this standard.

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.

EN 60065	2002	Audio, video and similar electronic apparatus – Safety requirements (IEC 60065:2001, mod)
EN 60068-2-32		Environmental testing – Part 2: Tests – Test Ed: Free fall (IEC 60068-2-32)
EN 60068-2-75		Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests (IEC 60068-2-75)
EN 60112	2003	Method for the determination of the proof and the comparative tracking indices of solid insulating materials (IEC 60112:2003)
EN 60127	Series	Miniature fuses (IEC 60127)
EN 60320	Series	Appliance couplers for household and similar general purposes (IEC 60320)
EN 60529		Degrees of protection provided by enclosures (IP code) (IEC 60529)
EN 60664-1	2003	Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests (IEC 60664-1:1992 + A1:2000 + A2:2002)
EN 60664-3		Insulation coordination for equipment within low-voltage systems – Part 3: Use of coating, potting or moulding for protection against pollution (IEC 60664-3)

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EN 60695-2-10		Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure (IEC 60695-2-10)
EN 60695-10-2		Fire hazard testing – Part 10-2: Abnormal heat – Ball pressure test (IEC 60695-10-2)
EN 60721-3-3		Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severity's – Section 3: Stationary use at weather protected locations (IEC 60721-3-3)
EN 60893-1		Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 1: Definitions, designations and general requirements (IEC 60893-1)
EN 60999-1	2000	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units – Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm' up to 35 mm^2 (included) (IEC 60999-1:1999)
EN 61032		Protection of persons and equipment by enclosures – Probes for verification (IEC 61032)
EN 61140	2002	Protection against electric shock – Common aspects for installation and equipment (IEC 61140:2001)
EN 61180-1		High-voltage test techniques for low-voltage equipment – Part 1: Definitions, test and procedure requirements (IEC 61180-1)
EN 61180-2		High-voltage test techniques for low-voltage equipment – Part 2:Test equipment (IEC 61180-2)
EN 132400		Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D)
HD 21	Series	Cables of rated voltages up to and including 450/750 V and having thermoplastic insulation (IEC 60227, mod)
HD 22	Series	Cables of rated voltages up to and including 450/750 V and having cross-linked insulation (IEC 60245, mod)
IEC 60085		Thermal evaluation and classification of electrical insulation
IEC 60417, database		Graphical symbols for use on equipment
IEC 60884-1	2002	Plugs and socket-outlets for household and similar purposes - Part 1: General requirements
IEC 60884-2-5	1995	Plugs and socket-outlets for household and similar purposes - Part 2: Particular requirements for adaptors

3 Definitions

For the purpose of this CENELEC standard, the following definitions apply.

Where the terms "voltage" and "current" are used, they imply r.m.s. values, unless otherwise specified.

Throughout this standard, the word "earthing" is used for "protective earthing".

The term "accessory" is used as a general term covering plugs and portable socket-outlets. The use of the accessories is shown in Figure 1a of IEC 60884-1.

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