Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz Part 4-3: Low voltage decoupling filter - Incoming filter

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50065-4-3:2003 sisaldab Euroopa standardi EN 50065-4-3:2003 ingliskeelset teksti. Käesolev dokument on jõustatud 08.05.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 50065-4-3:2003 consists of the English text of the European standard EN 50065-4-3:2003. This document is endorsed on 08.05.2003 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 standard applies to incoming filters used to control the coupling of signals between the utility area and the consumer area (see Figure 1)	**Scope:** This standard applies to incoming filters used to control the coupling of signals between the utility area and the consumer area (see Figure 1)

ICS 31.160, 33.040.30

Võtmesõnad: decoupling, electrical installations, filters, input signals, low voltage installati, low voltage mains, low-voltage installations, signal transmission, specification, specification (approval), specifications

EUROPEAN STANDARD **EN 50065-4-3**

NORME EUROPÉENNE

EUROPÄISCHE NORM January 2003

ICS 31.160; 33.040.30

English version

Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz Part 4-3: Low voltage decoupling filter - Incoming filter

Transmission de signaux sur les réseaux électriques basse tension dans la bande de fréquences de 3 kHz à 148,5 kHz Partie 4-2: Filtres basse tension de découplage - Filtre de branchement

Signalübertragung auf elektrischen Niederspannungsnetzen im Frequenzbereich 3 kHz bis 148,5 kHz Teil 4-3: Niederspannungs-Entkopplungsfilter - Eingangsfilter

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

Ref. No. EN 50065-4-3:2003 E

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 50065-4-3 on 2001-09-01.

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)	2003-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2004-08-01

EN 50065 consists of the following parts, under the general title: Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz

Part 1	General requirements, frequency bands and electromagnetic disturbances
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
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
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
Part 4-1	Low voltage decoupling filters – Generic specification
Part 4-2	Low voltage decoupling filters – Safety requirements
Part 4-3	Low voltage decoupling filters – Incoming filter
Part 4-4	Low voltage decoupling filters – Impedance filter
Part 4-5	Low voltage decoupling filters – Segmentation filter
Part 4-6	Low voltage decoupling filters – Phase coupler
Part 7	Equipment impedance

Contents

1 Scope

This standard applies to incoming filters used to control the coupling of signals between the utility area and the consumer area (see Figure 1).

The standard defines

- the minimum impedance in the relevant frequency band(s) at both Utility port and Consumer port,
- the minimum attenuation of unwanted signals transmitted from the utility side to the consumer side and vice versa,
- the transmission characteristics:
  - operating frequency domain for both utility side and consumer side,
  - attenuation between the utility side and the consumer side and vice versa,
  - impedance at the utility side and at the consumer side.

This standard applies to incoming filters designed for and used in single or multiphase installations.

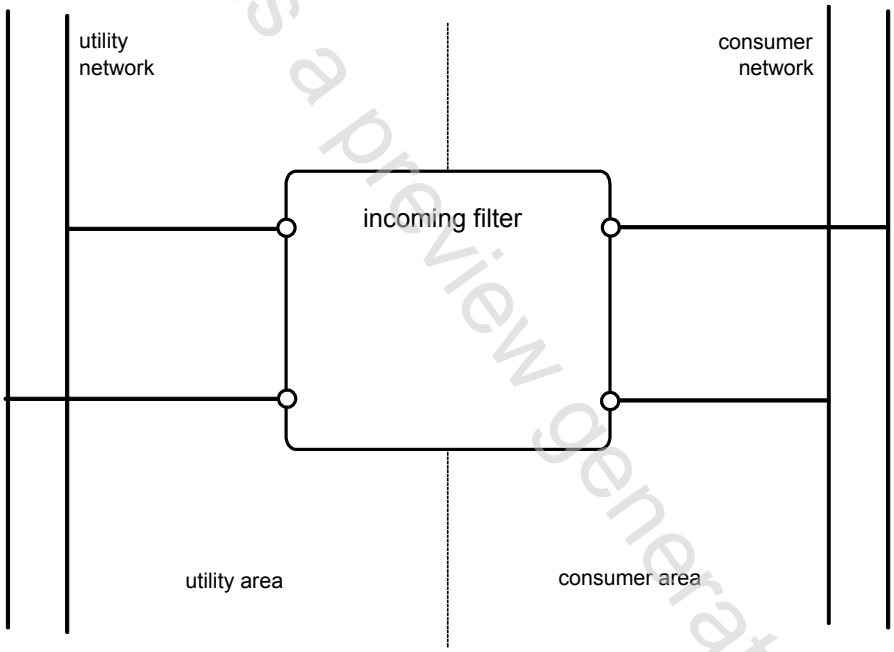

Figure 1 - The application of incoming filter

2 Normative references

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).

EN 50065-2-1 Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz - 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 Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz - 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 Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz - 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 Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz - Part 4-1: Low voltage decoupling filters - Generic specification.

EN 50065-4-2 Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz - Part 4-2: Low voltage decoupling filters - Safety requirements.

3 Classification

The selection of the filter shall be made according to the local regulations.

NOTE If there are no local regulations, Type 1 shall be used.

3.1 Type 1

Satisfies both the utility and the consumer impedance requirements.

3.2 Type 2

Satisfies only the utility impedance requirements.

3.3 Type 3

Satisfies only the consumer impedance requirements.

4 Incoming filter electrical characteristics

The filter shall meet the requirements given in EN 50065-4-1 and EN 50065-2 series.

4.1 Overvoltage

Requirements in accordance with 7.1.5 of EN 50065-4-2:

- for the utility side: category IV;
- for the consumer side: category III.

4.2 EMC

According to EN 50065-2-1 for the consumer side in residential, commercial and light industrial environments.

According to EN 50065-2-2 for the consumer side in industrial environments.

According to EN 50065-2-3 for the utility side.