

SLOVENSKI STANDARD
SIST EN 50065-1:1997/A3:1998
01-september-1998

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 - Amendment A3

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

Signalübertragung auf elektrischen Niederspannungsnetzen im Frequenzbereich 3 kHz bis 148,5 kHz -- Teil 1: Allgemeine Anforderungen, Frequenzbänder und elektromagnetische Verträglichkeit

Transmission de signaux sur les réseaux électriques basse tension dans la bande de fréquences de 3 kHz à 148,5 kHz -- Partie 1: Règles générales, bandes de fréquences et perturbations électromagnétiques

Ta slovenski standard je istoveten z: EN 50065-1:1991/A3:1996

ICS:

| | | |
|-----------|---|--|
| 33.040.30 | Komutacijski in signalizacijski sistem | Switching and signalling systems |
| 33.100.01 | Elektromagnetna združljivost na splošno | Electromagnetic compatibility in general |

SIST EN 50065-1:1997/A3:1998 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50065-1/A3

May 1996

UDC 621.394.45
ICS 33.040.30

Descriptors: Supply mains, low voltage, transmission, frequency, signal, quality

English version

**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**

Transmission de signaux sur les réseaux
électriques basse-tension dans la bande
de fréquences de 3 kHz à 148,5 kHz
Partie 1: Règles générales, bandes de
fréquences et perturbations
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Signalübertragung auf elektrischen
Niederspannungsnetzen im
Frequenzbereich 3 kHz bis 148,5 kHz
Teil 1: Allgemeine Anforderungen,
Frequenzbänder und elektromagnetische
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This amendment A3 modifies the European Standard EN 50065-1:1991; it was approved by CENELEC on 1996-03-05. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
Urad RS za standardizacijo in meroslovje
LJUBLJANA

SIST. EN 50065-1/A3

PREVZET PO METODI RAZGLASITVE

-09- 1998

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 draft amendment prAD was prepared by SC 205A, Mains communicating systems, of Technical Committee CENELEC TC 205, Home and Building Electronic Systems (HBES). It was submitted to the Unique Acceptance Procedure in March 1995 and was approved by CENELEC as amendment A3 to EN 50065-1:1995 on 1995-11-28.

The text of draft amendment prAE, prepared by the same CENELEC Subcommittee, was submitted to the Unique Acceptance Procedure in June 1995 and was approved by CENELEC on 1996-03-05.

The 87nd Technical Board of CENELEC has decided to combine both texts and approved them as amendment A3 to EN 50065-1:1991.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1997-03-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1997-03-01

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6 Transmitter output voltage

Add after the title:

Common-mode injection shall not be used unless otherwise explicitly allowed in local regulations (see also clause 9).

8 Test conditions

8.1 Replace the paragraph by:

Measurements of output and spurious output shall be made using the method described in Annex C (see also Annex F) with the equipment operating under the following conditions.

9 Inadvertent operation

Add:

Common-mode injection devices may disturb the normal operation of residual current protection devices and cause serious safety hazards to the user. Therefore, on common-mode injection devices a clearly written warning (either on the product or on the leaflet) shall indicate:

"Due to safety reasons the use of this product is not allowed in the residential environment. Use of common-mode injection devices in industrial and commercial environments is under the responsibility of the installer and must be in accordance with the local regulations."

Additional annex:

Annex F (informative)

Design for a single artificial network intended to show the performance of a signalling system

Measurements on real networks have shown that the two separate artificial mains networks required to be used for compliance testing do not truly represent practical network impedances.

To determine what levels more realistically occur on networks and to provide a more convenient means of measurement the adaptive network shown in figure F.1 may be used in conjunction with the CISPR standard network.

This allows investigative measurement over the complete band 3 kHz - 148,5 kHz and presents impedances closer to those found in practice.

Theoretical analysis of impedance is shown in figure F.2.

NOTE 1: Care shall be taken due to the increased current through the ground wire caused by the connected adaptive network.

NOTE 2: At the lowest frequencies of the range 3 kHz - 148,5 kHz the 0,25 μ F capacitor does not have a negligible impedance. It may be necessary to correct the reading of the measuring set for the voltage division caused by this impedance.

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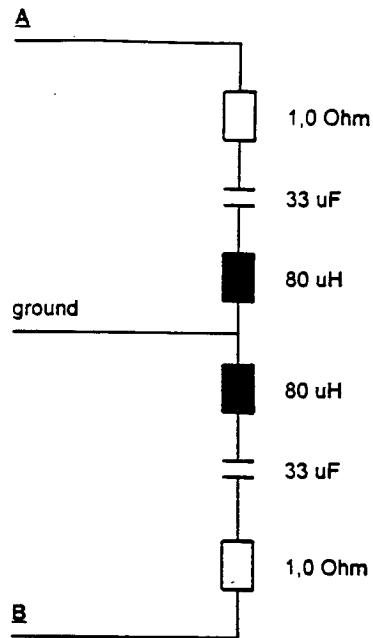


Figure F.1a: The adaptive network for the band 3 kHz - 148,5 kHz

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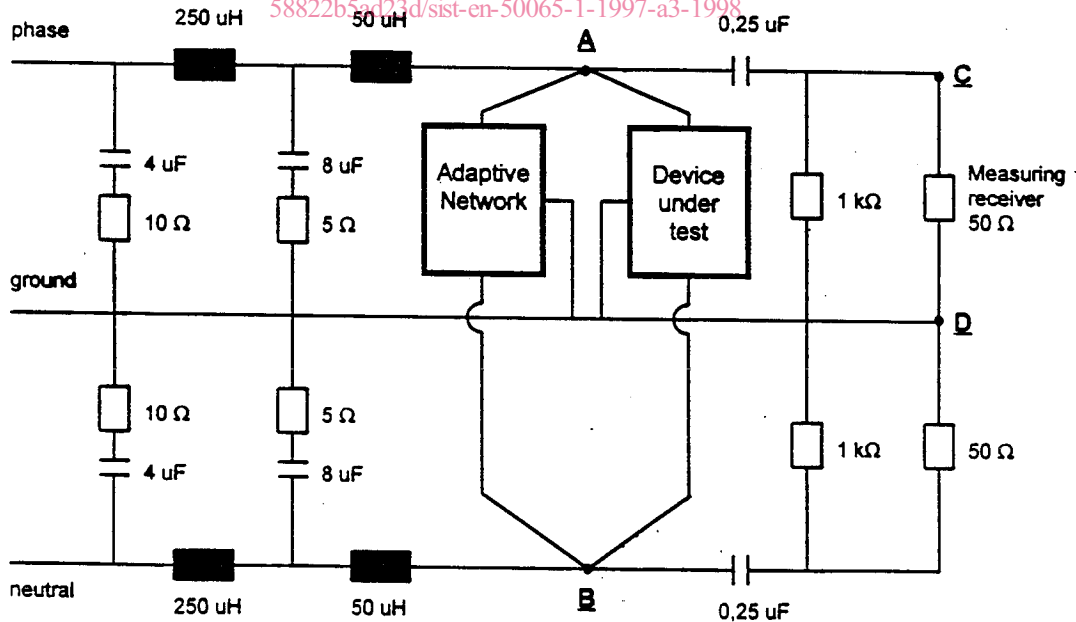


Figure F.1b: The adaptive network connection with the CISPR 16-1 network

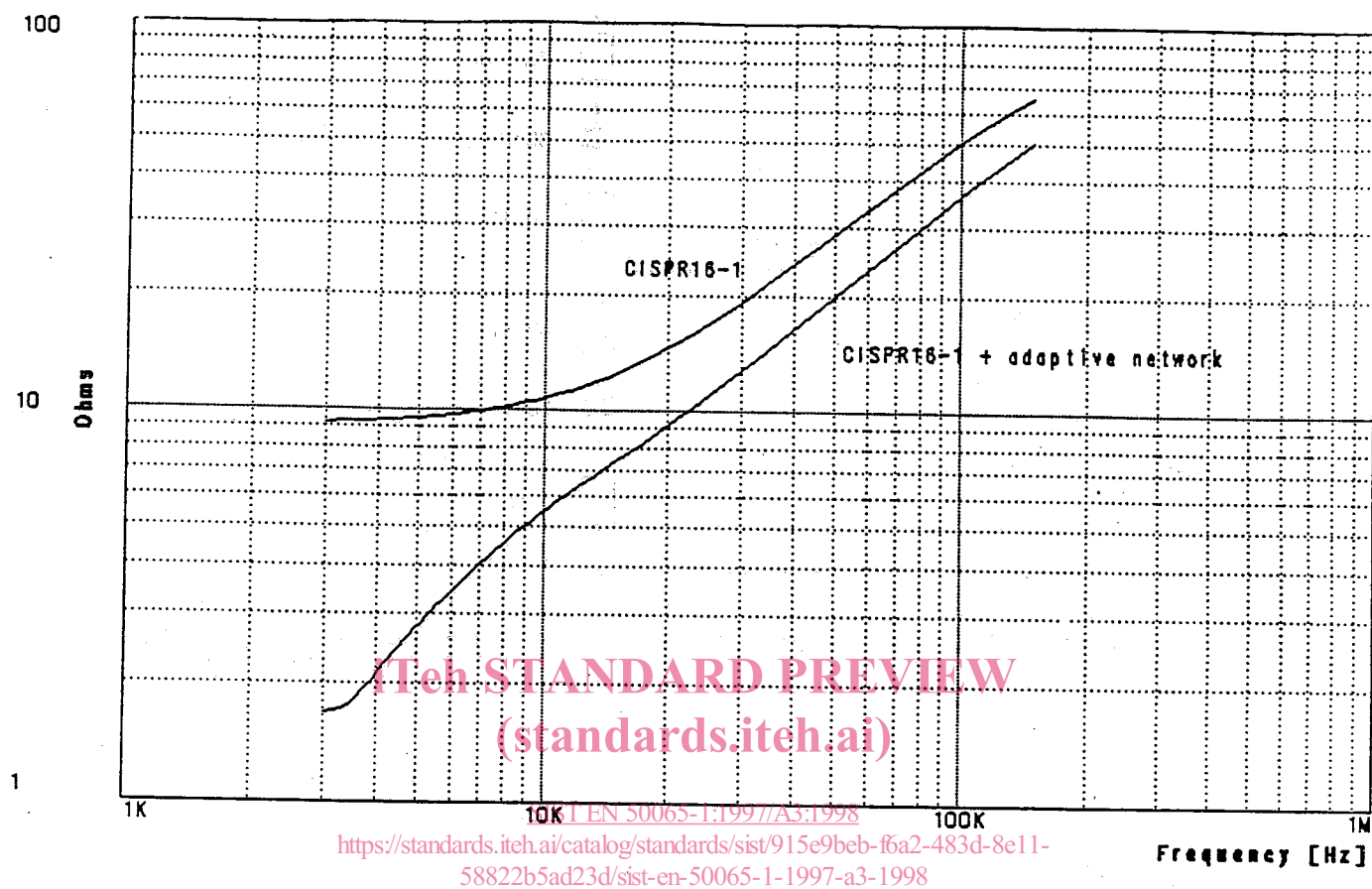


Figure F.2: The nominal CISPR 16-1 impedance (doubled) and the calculated impedance between the points A and B (figure F.1b) when there is the adaptive network added into the CISPR 16-1 network.