TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CLC/TR 50412-1

May 2007

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English version

Power line communication apparatus and systems used in low-voltage installations in the frequency range 1,6 MHz to 30 MHz - Part 1: General

Equipements et systèmes de courant porteur en ligne utilisés dans les installations basse tension dans la bande de fréquence 1,6 MHz à 30 MHz - Part 1: Generalités

Kommunikationsgeräte und -systeme auf elektrischen Niederspannungsnetzen im Frequenzbereich 1,6 MHz bis 30 MHz - Teil 1: Allgemein

This Technical Report was approved by CENELEC on 2006-12-25.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This Technical Report was prepared by SC 205A/WG 10, Mains communicating systems, of Technical Committee CENELEC TC 205, Home and Building Electronic Systems (HBES).

The text of the draft was submitted to vote and was approved by CENELEC as CLC/TR 50412-1 on 2006-12-25.

1 Scope

This Technical Report applies to electrical equipment using signals in the frequency range 1,6 MHz to 30 MHz to transmit information on low voltage electrical systems, either on the public supply system or within installations in consumers' premises.

It is a Technical Report covering the different standards for HF Power Line produced by SC205A.

It points to related documents about:

- frequency bands, coexistence and filters;
- limits for the terminal output levels in the operating band;
- limits for conducted and radiated disturbance (product & installation EMC);
- measurement methods.

It does not specify the signal modulation methods nor the coding methods nor functional features. Environmental requirements and tests are not included.

The requirements have been selected so as to ensure an adequate level of EMC and EMI for all apparatus (e.g. including residential, commercial, light industrial and industrial premises).

The severity levels required by this Technical Report may not cover extreme cases which may occur in any location but with a low probability of occurrence. In special cases situations will arise where the level of disturbances may exceed the levels specified in this Technical Report (e.g. where a hand-held transmitter is used in proximity to an apparatus). In these instances special mitigation measures may be required.

2 Normative references

Void

3 Structure of the EN/TR 50412 series

The EN/TR 50412 series will consist of the following parts:

CLC/TR 50412-1	Power line communication apparatus and systems used in low-voltage installations in the frequency range 1,6 MHz to 30 MHz – Part 1: General
EN 50412-2-1	Power line communication apparatus and systems used in low-voltage installations in the frequency range 1,6 MHz to 30 MHz – Part 2-1: Residential, commercial and industrial environment - Immunity requirements
EN 50412-2-2[1)]	Power line communication apparatus and systems used in low-voltage installations in the frequency range 1,6 MHz to 30 MHz – Part 2-2: Residential, commercial and industrial environment - Emission requirements

[1)] At draft stage