



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 12015:2005

ICS 33.100.10
91.140.90

**ELECTROMAGNETIC COMPATIBILITY -
PRODUCT FAMILY STANDARD FOR LIFTS,
ESCALATORS AND MOVING WALKS -
EMISSION**

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Supersedes EN 12015:1998

English version

Electromagnetic compatibility - Product family standard for lifts, escalators and moving walks - Emission

Compatibilité électromagnétique - Norme famille de
produits pour ascenseurs, escaliers mécaniques et trottoirs
roulants -Emission

Elektromagnetische Verträglichkeit - Produktfamilien-Norm
für Aufzüge, Fahrtreppen und Fahrsteige - Störaussendung

This European Standard was approved by CEN on 1 April 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 12015:2004) has been prepared by Technical Committee CEN/TC 10 “Lifts, escalators and moving walks”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2006.

This document supersedes EN 12015:1998.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The limits given in this standard recognize the fact that the product family covers a total range of lifts, escalators and moving walks used in residential buildings, offices, hospitals, hotels, industrial plants etc. and that lifts, escalators and moving walks are deemed to have their own dedicated power supply and be connected with the consent of the supply authority to a low impedance source.

The related EMC product family standard for immunity is:

EN 12016, *Electromagnetic compatibility — Product family standard for lifts, escalators and passenger conveyors — Immunity.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EN 12015:2004 (E)

Introduction

This European Standard has been prepared to provide one means of complying with the requirements of the Electromagnetic Compatibility (EMC) Directive. The requirements of this European Standard have been specified so as to ensure a level of electromagnetic emission which will cause minimal disturbance to other equipment. The levels, however, do not cover the following cases:

- where the probability of an occurrence likely to produce emissions in excess of those which would normally be experienced is extremely low, e.g. the emergency stopping of a lift, escalator or moving walk under a fault condition;
- where highly susceptible apparatus will be used in the close proximity of the equipment covered by this standard, in which case further measures may have to be taken to:
 - reduce the level of electromagnetic emission to below that specified in this standard; or
 - increase the immunity of the affected apparatus.

The given emission limits, are on the basis that equipment of the product family range may be installed both indoor and outdoor in all types of building, involves the switching of heavy currents and high inductive loads and, generally, is connected to a low voltage system.

Due to the size of an installed lift, it becomes impracticable to test the total assembly either in a test laboratory or in situ where the uncontrolled environment may also influence the test procedures and results. This applies also to measurements within the car. Similar considerations regarding dimensions apply equally to the testing of escalators and moving walks.

The following explains the rationale to the revision of the standard EN 12015:1998.

a) Important changes

Introduced requirements to control the emissions below 30 MHz of the drive to machine/motor connection. The emission limits are independent of the magnitude of the conducted current. Limits and test method are referred to EN 55014-1. Regarding other ports, the radiated tests above 30 MHz cover the cable connections and there are no known problems below 30 MHz.

Introduced requirements to control mains electricity supply harmonic emissions and voltage fluctuations.

NOTE The radiation measurements in Table 1 have been harmonised with EN 55011.

The term "installation" has been changed to "system". This is due to the fact that official interpretation defines that fixed installations are not covered by the conformity assessment requirements of the EMC Directive, valid for apparatus and systems. The scope of the standard is applicable to the apparatus and assembly of apparatus of lifts and escalators and assembly into systems.

b) Environmental issues

Lifts, escalators and moving walks are systems whose apparatus and assembly of apparatus are distributed (and some of which move) throughout the building. The definition in EMC terms of the use of the building (residential or industrial) cannot be predetermined or assumed to be fixed. Therefore, to cover requirements in all cases, no differentiation between environments has been made and a single set of limits has been maintained. This set of high frequency limits is based on the industrial limits of EN 61000-6-4 and is known to be above the usual limits for the residential environment. This is justified by the experience that systems in compliance with EN 12015:1998 have not been known to cause EMC interference with regard to mains and radiated emissions above 30 MHz.

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