AS 1735.5—2001
(Incorporating Amendment No. 1)

Australian Standard™

Lifts, escalators and moving walks

Part 5: Escalators and moving walks (BS EN 115:1995, MOD)

Standards Australia

This Australian Standard was prepared by Committee ME-004, Lift Installations. It was approved on behalf of the Council of Standards Australia on 15 November 2000 and published on 12 January 2001..

The following are represented on Committee ME-004:

Association of Consulting Engineers Australia

Association of Independent Lift Companies

Australian Building Codes Board

Australian Chamber of Commerce and Industry

Australian Elevator Association

Australian Industry Group

Department for Administrative and Information Services (South Australia)

Department of Employment Training and Industrial Relations (Qld)

Department of Industries and Business, N.T.

Department of Infrastructure, Energy and Resources (Tasmania)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-004, Lift Installations, to supersede AS 1735.5—1996 *Lifts, escalators and moving walks*, Part 5: *Escalators*, and (in part) AS 1735.6(Int)—1996 *Lifts, escalators, and moving walks*, Part 6: *Moving walks*.

The requirements pertaining to accelerating moving walks remain in AS 1735.6(Int)—1996.

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

The objective of this Standard is to provide requirements for electric escalators and moving walks that carry passengers.

This Standard is a modification of and is reproduced from BS EN 115:1995, *Safety rules for the construction and installation of escalators and passenger conveyors*.

Variations have been made in this Standard to the requirements of BS EN 115:1995. These variations, which are necessary for Australian application, are listed in Annex ZZ and are indicated by single bar lines set adjacent to the affected text. Where an additional clause has been added, it is indicated by a double bar line in the margin.

This Standard incorporates Amendment No. 1 (October 2002). The changes required by the Amendment are listed in Appendix ZZ, and are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A 'normative' annex is an integral part of a Standard, whereas an 'informative' annex is only for information and guidance.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) References to EN and CENELEC Standards should be replaced, where appropriate, by reference to equivalent Australian or Australian/New Zealand Standards as follows:

Reference to EN or CENELEC Standard		*Australian or Australian/New Zealand Standard*	
EN		AS	
60439-1	Low-voltage switchgear and controlgear assemblies Part 1: Type-tested and partially type-tested assemblies	3439.1	Low-voltage switchgear and controlgear assemblies Part 1: Type-tested and partially type-tested assemblies
60529	Degrees of protection provided by enclosures (IP code)	1939	Degrees of protection provided by enclosures for electrical equipment (IP Code)
60742	Specifications for safety isolating transformers	AS/NZS 3108	Approval and test specification—Particular requirements for isolating transformers and safety isolating transformers

EN		AS/NZS	
60947-4-1	Low-voltage switchgear and controlgear Part 4: Contactors and motor starters Section One — Electromechanical	3947 3947.4.1	Low-voltage switchgear and controller Part 4.1: Contractors and motor starters — Electro-mechanical contactors and motor-starters
60947-5-1	Part 5: Control circuit devices and switching elements Section One — Electromechanical control circuit devices	3947.5.1	Part 5.1: Control circuit devices and switching elements — Electro-mechanical control circuit devices
		AS	
CENELEC HD 21	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V— Part 1: General requirements Part 3: Single-core non-sheathed cables for fixed wiring Part 4: Sheathed cables for fixed wiring	3147	Approval and test specification — Electric cables — Thermoplastic insulated — For working voltages up to and including 0.6/1 kVs
		AS/NZS	
HD 21	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V— Part 5: Flexible cables (cords)	3141	Approval and test specification — Electric flexible cords
HD 384	Electrical installations of buildings — Part 4: Protection for safety — Chapter 41: Protection against electric shock Part 5: Selection and erection of electrical equipment — Chapter 54: Earthing arrangements and protective conductors	3000	Electrical Installations (known as the Australian/New Zealand Wiring Rules

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INTRODUCTION

0 Introduction

The purpose of this standard is to define safety rules for escalators and passenger conveyors in order to safeguard people and objects against risks of accidents during maintenance and inspection work.

0.1 It is necessary that all components:

0.1.1 are properly dimensioned, of sound mechanical and electrical construction and made of material with adequate strength and of suitable quality and free from defects; the use of materials with asbestos is not permitted;

0.1.2 are kept in good repair and working order. In particular, care shall be taken that the dimensions indicated are maintained despite wear; if necessary, the worn parts shall be replaced.

0.2 Where, for elucidation of the text, an example is given, this shall not be considered as the only possible design. Any other solution leading to the same result is permissible if it is guaranteed that with an equivalent function the same safety level exists.

0.3 It is not the purpose of this standard to preclude new developments of escalators and passenger conveyors. A new design shall meet at least the safety requirements of this standard.

0.4 Certain escalators and passenger conveyors are subject to special operational conditions. For these cases some additional requirements are defined, marked in this standard with the note 'For Public Service Escalators and Public Service Passenger Conveyors'. Additional recommendations for that kind of escalator and passenger conveyor are given in annex D (informative).

During the planning stage it should be specified if it will be a public service escalator or public service passenger conveyor (for criteria and definition see **3.9**).

0.5 Special indications

0.5.1 Fire protection and building requirements differ from country to country and so far neither have been harmonized, either on the international level or in Europe.

Therefore, this standard cannot include specific requirements for fire protection and building requirements. However, it is recommended that as far as possible, escalators and passenger conveyors are made of materials that are not easy to ignite[1)].

0.5.2 If escalators or passenger conveyors have to be operated under special conditions, such as directly exposed to the weather or explosive atmosphere, or in exceptional cases serve as emergency exits, appropriate design criteria, components, materials and instructions for use shall be used that satisfy the particular conditions.

In addition, it is recommended that for escalators and passenger conveyors which otherwise would be exposed to weather conditions, the customer provides a roof and enclosure.

0.5.3 If, exceptionally, means of transportation, e.g. push chairs, luggage trolleys or baggage carts, shall be carried on escalators or passenger conveyors, special measures shall be agreed between the manufacturer of the escalator/passenger conveyor, the manufacturer of the means of transportation and the customer. Within those measures, care has to be taken that the conditions defined in **8.2.1** for the steps, pallets and the belt are observed when selecting the means of transportation. The measures to be taken are governed by very different conditions, which make a standardization within the scope of EN 115 impossible.

0.6 Requirements related to the life of the escalators and passenger conveyors are not included in this standard as they depend on the place of installation and customers' special specifications.

0.7 This standard has been drawn up taking into account in certain cases the imprudent act of the user. However, this standard takes into consideration proper use and not abuse.

0.8 An Interpretation Committee has been established to clarify, if necessary, the spirit in which the clauses of the standard have been drafted and to specify the requirements appropriate to particular cases.

[1)] 'not easy to ignite' equals 'schwer entflammbar' in German and 'difficilement inflammable' in French.