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Australian STANDARD®

Energy performance of lifts, escalators and moving walks

Part 1: Energy measurement and verification

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Preface

This Standard was prepared by the Standards Australia Committee ME-004, Lift Installations.

The objective of this Standard is to specify:

(a) methods of measuring actual energy consumption of lifts, escalators and moving walks on a single unit basis; and

(b) methods of carrying out periodic energy verification checks on lifts, escalators and moving walks in operation.

This Standard only considers the energy performance during the operational portion of the life cycle of the lifts, escalators or moving walks.

This Standard is identical with, and has been reproduced from, ISO 25745-1:2012, *Energy performance of lifts, escalators and moving walks — Part 1: Energy measurement and verification*.

As this document has been reproduced from an International Standard, the following applies:

(i) In the source text "this part of ISO 25745" should read "this Australian Standard".

(ii) A full point substitutes for a comma when referring to a decimal marker.

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The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 25745-1 was prepared by Technical Committee ISO/TC 178, *Lifts, escalators and moving walks*.

ISO 25745 consists of the following parts, under the general title *Energy performance of lifts, escalators and moving walks*:

— *Part 1: Energy measurement and verification*

Additional parts, dealing with energy calculation and classification for lifts (elevators) and energy calculation and classification for escalators and moving walks, are planned.

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Introduction

This International Standard has been prepared in response to the rapidly increasing need to ensure and to support the efficient and effective use of energy. This International Standard provides:

a) a consistent method of measuring actual energy usage of an installed lift, escalator and moving walk;

b) a simple method to periodically verify that energy usage of an installed unit has not changed — this is in support of regulatory periodic energy verification requirements.

This International Standard is intended to be a reference for the following parties:

— building developers or owners determining and confirming the energy consumption of a building;

— building owners and service companies for performing regulatory periodic energy verification;

— the manufacturers, installers and maintenance providers of lifts, escalators and moving walks;

— consultants and architects involved in specification of lifts, escalators and moving walks.

The total energy consumption over the entire life cycle of lifts, escalators and moving walks consists of the energy to manufacture, install, operate, and the disposal of lifts, escalators and moving walks. However, for the purpose of this International Standard, only the power consumption of the lift, escalator or moving walk required for its operation is considered in the assessment of energy consumption and its verification.

This International Standard is suitable for national or regional jurisdictional energy performance purposes, such as European Directive 2010/31/EU.[4]

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Australian Standard®

Energy performance of lifts, escalators and moving walks

Part 1: Energy measurement and verification

1 Scope

1.1 General

This part of ISO 25745 specifies:

a) methods of measuring actual energy consumption of lifts, escalators and moving walks on a single unit basis;

b) methods of carrying out periodic energy verification checks on lifts, escalators and moving walks in operation.

This part of ISO 25745 only considers the energy performance during the operational portion of the life cycle of the lifts, escalators or moving walks.

1.2 Lifts

For lifts, this part of ISO 25745 does not cover energy aspects, such as:

a) hoistway lighting;

b) heating and cooling equipment in the lift car;

c) machine room lighting;

d) machine room heating, ventilation and air conditioning;

e) non-lift, display systems, closed circuit television security cameras, etc.;

f) non-lift, monitoring systems (building management systems, etc.);

g) the effect of lift group dispatching on energy consumption;

h) consumption through the power sockets.

1.3 Escalators and moving walks

For escalators and moving walks, this part of ISO 25745 covers energy aspects of the ancillary equipment, such as:

a) lighting with the exception of comb plate lighting and step gap lighting and traffic light;

b) cooling and heating;

c) alarm devices and emergency battery supplies equipment, etc.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
ancillary current
current drawn by the ancillary circuit(s) through the ancillary switch(es)

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