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**Energy performance of lifts, escalators  
and moving walks —**

**Part 2:  
Energy calculation and classification  
for lifts (elevators)**

**AMENDMENT 1: Express zones**

*Performance énergétique des ascenseurs, escaliers mécaniques et  
trottoirs roulants —*

*Partie 2: Calcul énergétique et classification des ascenseurs*

*AMENDEMENT 1: Zones sans arrêt intermédiaire*





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This document was prepared by Technical Committee ISO/TC 178, *Lifts, escalators and moving walks*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 10, *Lifts, escalators and moving walks*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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# Energy performance of lifts, escalators and moving walks —

## Part 2: Energy calculation and classification for lifts (elevators)

### AMENDMENT 1: Express zones

#### *Scope*

Delete j).

Delete NOTE 2. Renumber NOTE 1 as NOTE.

#### 3.2

Replace the definition with the following:

section of the lift well whose distance between two adjacent landings exceeds three average floor distances

#### 5.2.2

Replace the complete subclause with the following:

a) For lifts without express zone, the average travel distance ( $s_{av}$ ) for the target installation shall be calculated by Formula (1).

$$s_{av} = \frac{p_{av}}{100} \times s_{rc} \quad (1)$$

where

$p_{av}$  is the percentage of the average travel distance according to Table 2;

$s_{rc}$  is the one-way travel distance of reference cycle according to ISO 25745-1 (m).

**Table 2 — Percentage of average travel distance**

Usage category	1-3	4	5	6
Number of stopping floors	Percentage of average travel distance $p_{av}$			
2	100 %			
3	67 %			
> 3	49 %	44 %	39 %	32 %

For lift applications in which the traffic patterns are well known, a specific percentage of the average travel distance can be agreed between the involved parties for the assessment of the annual energy consumption. In this case, the selected percentage should be as documented in Annex B.

b) For lifts with express zone, the average travel distance shall be calculated by Formula (2).

$$s_{av} = \frac{p_{av}}{100} \times (s_{rc} - (s_{ez} - s_{fl})) + \frac{k_{ez}}{100} \times (s_{ez} - s_{fl})$$

(2)

where

- $s_{ez}$

is the length of the express zone (m);
- $s_{fl}$

is the average floor distance (m);
- $k_{ez}$

is the percentage of the number of trips passing through the express zone according to Table 3.

Table 3 — Percentage of trips passing through the express zone

Usage category		1-3	4	5	6
$k_{ez}$	$s_{ez} \leq 75\text{ m}$	58 %	40 %	25 %	18 %
	$s_{ez} > 75\text{ m}$	42 %	30 %	18 %	14 %
NOTE Percentage values for usage categories 1-3 are estimations based on exponential trend identified within usage categories 4-6.					

In the case of multiple express zones, the individual zones shall be summed up as one single express zone for the calculation.

Renumber subsequent formulae by increasing their numbers by 2.

Renumber subsequent tables by increasing their numbers by 1.

Annex C

Add the following symbols in alphabetical order:

- $k_{ez}$

is the percentage of the number of trips passing through the express zone
- $p_{av}$

is the percentage of the average travel distance (%)
- $s_{ez}$

is the length of the express zone (m)
- $s_{fl}$

is the average floor distance (m)



