

**Code of practice for installation, operation and maintenance of
electric passenger and goods lifts**

AMENDMENT NO. 1

December 2013

1. Page 8, Foreword

Insert the following acknowledgement after the sentence “Diagrams in Annex E are provided by courtesy of Toshiba Elevator”:

Subclause 8.4 on unintended car movement protection was reproduced/adapted from 9.11 of EN 81-1:1998+A3:2009 with permission from CEN.

2. Page 9, 1.1 Scope

Replace 1.1 (I) with the following:

I) Vehicle lifts and stair lifts.

3. Page 36, New subclause

Insert the following new subclause after 8.3:

8.4 Unintended car movement protection

A traction drive lift shall be provided with a means to detect and stop unintended car movement away from the landing with the landing door not in the locked position and the car door not in the closed position, as a result of failure in any single component of the lift machine or drive system upon which the safe movement of the car depends, except failure of the suspension ropes and the traction sheave of the machine.

8.4.1 The detection means shall detect unintended movement of the car, and the stopping means shall cause the car to stop, and keep it stopped.

8.4.2 The unintended movement of the car shall be detected by a detection means of at least one switching device at latest when the car leaves the unlocking zone.

8.4.3 The detection means shall operate an electric safety device to switch off the electric motor driving the lift and the safety switch provided shall not be of auto resetting type.

8.4.4 The stopping means shall be capable of performing as required without assistance from any lift component that, during normal operation, controls the speed or retardation, stops the car or keeps it stopped, unless there is built-in redundancy and correct operation is self-monitored.

In the case of using the machine brake, self-monitoring implies verification of correct lifting or dropping of the mechanism or verification of braking force. If a failure is detected, next normal start of the lift shall be prevented.

The stopping element of the stopping means shall act:

- (a) on the car, or
- (b) on the counterweight, or
- (c) on the rope system (suspension or compensating), or
- (d) on the traction sheave (e.g. on the sheave directly or on the same shaft in the immediate vicinity of the sheave).

The stopping element of the stopping means, or the stopping means preventing the car movement may be common with those used for:

- (a) preventing overspeed in down direction,
- (b) preventing ascending car overspeed.

8.4.5 The stopping means shall stop the car in a distance such that:

- (a) if the car is above the landing, the vertical distance between the landing sill and the lowest part of the car apron shall not exceed 200 mm and the free distance from the car sill to landing door lintel shall not be less than 1000 mm.
- (b) if the car is below the landing, the free distance from the landing sill to car door lintel shall not be less than 1000 mm.
- (c) and at no time shall the distance taken to detect and stop the car exceed 1200 mm from the landing where the unintended car movement is detected (see Figure 11).

These values are obtained with any load in the car, up to 100% of rated load.

8.4.6 During the stopping phase, the stopping element of the stopping means shall not allow a retardation of the car in excess of 1 g with any load in the car, up to 100% of rated load.

8.4.7 When the detection and stopping means has been activated or the redundancy monitoring has indicated a failure of the stopping element of the stopping means, its release or the reset of the lift shall require the intervention of a competent person.

8.4.8 The release of the stopping means shall not require the access to the car or the counterweight.

8.4.9 After its release, the detection and stopping means shall be in a condition to operate.

8.4.10 If the stopping means requires external energy to operate, the absence of energy shall cause the lift to stop and keep it stopped. This does not apply for guided compressed springs.

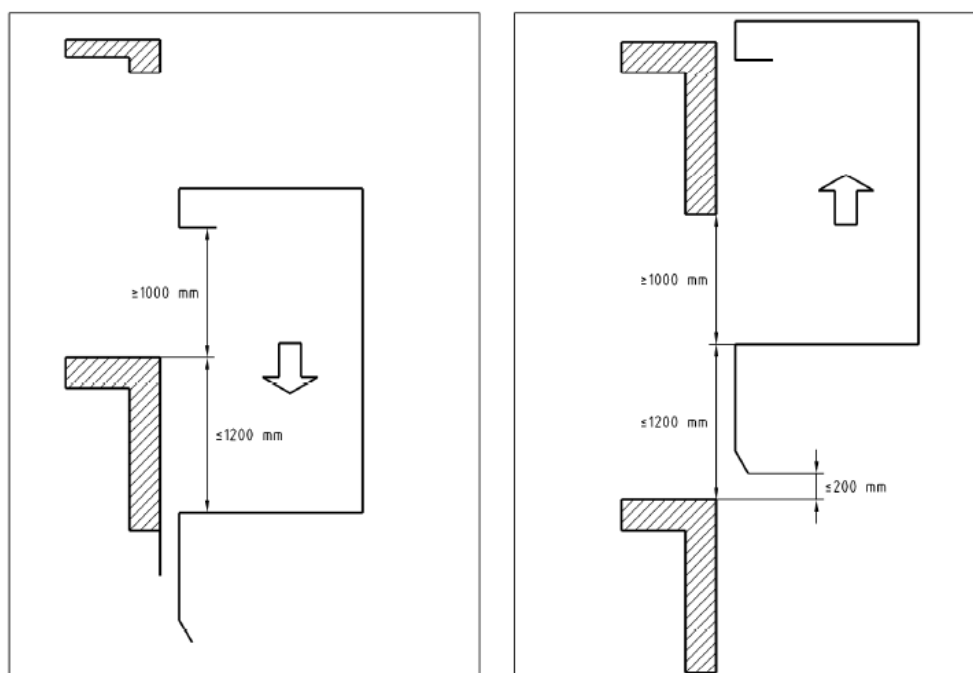


Figure 11 – Unintended car movement

4. Page 45,12.3

Replace the text with the following:

12.3 Emergency power supply for lighting, ventilation, alarm and intercom systems for all passenger lifts

Emergency supply from a separate rechargeable source shall be provided for all passenger lifts. This emergency supply shall be of the type Uninterruptible Power Supply (UPS) complying with IEC 62040-1. Capacity for this UPS shall be sufficient to operate a light, fan, alarm bell and intercom for 4 h. In the case where automatic mains supply standby generating system or an automatic rescue device is provided for that lift, this duration may be reduced to half. This UPS may be integrated into the automatic rescue device's supply if this automatic rescue device's supply is also in compliance with IEC 62040-1.