NORMA
EUROPEA

Porte pedonali motorizzate
Sicurezza in uso
Requisiti e metodi di prova

UNI EN 16005

NOVEMBRE 2012

Power operated pedestrian doorsets
Safety in use
Requirements and test methods

La norma specifica i requisiti di progettazione e i metodi di prova per porte pedonali motorizzate interne ed esterne. Tali porte possono essere attuate in modo elettromeccanico, elettro-idraulico e pneumatico.
La norma riguarda la sicurezza in uso delle porte pedonali motorizzate usate sia in normali ingressi che in vie di fuga e come porte tagliafuoco e di protezione per il fumo.
La norma si applica alle porte pedonali motorizzate di tipo scorrevole, a battente e girevoli, incluse le porte bilanciate e le porte a libro con anta a movimento orizzontale e i portoncini motorizzati incorporati in altri tipi di porte il cui uso principale è quello di garantire un accesso sicuro alle persone.
La norma non si applica a:
- porte a movimento verticale;
- porte di ascensori;
- porte di veicoli;
- porte o cancelli motorizzati principalmente usati per il traffico veicolare o per l'accesso di merci;
- porte utilizzate nei processi industriali;
- partizioni;
- porte fuori dalla portate delle persone (come i cancelletti di gru e carri ponte);
- barriere per traffico veicolare;
- tornelli;
- porte in corrispondenza di banchine metropolitane/ferroviarie.

TESTO INGLESE

La presente norma è la versione ufficiale in lingua inglese della norma europea EN 16005 (edizione ottobre 2012).

ICS 91.060.50

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The level shall be measured at one meter from the floor level in the centre of the compartment.

4.7.1.6 Danger of entrapment

It shall be ensured that persons cannot be entrapped in the passage area of the doorset during normal service or if the power supply fails. It shall be possible to open or close the doorset leaf or leaves by means of a force not exceeding 220 N.

4.7.2 Additional requirements for doorsets in escape routes and emergency exits

4.7.2.1 Operating mode selection

When an operating mode selector is used, the mode of operation shall be clearly identified and marked on the operating mode selector.

If a "locked" mode of operation is available, the mode of operation shall be protected, e.g. by an access code or a key, so that changes can only be made by authorised personnel.

4.7.2.2 Power operated doorsets with break-out function

Maximum width of floor guide slots shall be ≤ 20 mm.

Thresholds that are essential to the functioning or securing of a doorset shall not exceed 12 mm in height and their edges shall be sloped in order to minimise the danger of tripping.

The break-out function may be security-locked (to prevent unauthorised entry) if the requirements of 4.7.2.1 are fulfilled.

Doorset leaves or doorset leaves and side screens shall be capable of being broken out in any position in the direction of escape. The total force required to release the break out function shall not exceed 220 N. The force shall be measured in a static way at the leading edge at right angles to the doorset leaf or side screen at a height of (1 000 ± 10) mm.

If the swing leaf is fitted with a mechanical doorset closing device, the force required to further open the doorset shall not exceed 150 N when measured in a static way at the leading edge at right angles to the doorset leaf or side screen at a height of (1 000 ± 10) mm.

When the doorset leaf or side screen is broken out, the automatic doorset movement shall stop or reach a pre-determined safe position and stop. The doorset shall remain stationary until the broken out leaves have fully recovered the normal operation position.

An emergency break-out pictogram shall be fitted on doorsets with an emergency break-out function. An example of a suitable pictogram is shown in Annex E.

4.7.2.3 Power operated sliding and folding doorsets without a break-out function

Power operated sliding or folding doorsets with a clear opening width of up to 2 000 mm shall open by at least 80 % within 3 s after activation by the activator(s) in the escape direction or at the latest after 5 s when the power supply goes off. Opening time for larger doorset widths shall be calculated proportionally.

Power operated sliding or folding doorsets shall withstand a durability test of not less than 1 000 000 cycles.

The opening of the doorset shall be guaranteed by a fail-safe system according to Performance Level “d” of EN ISO 13849-1 and any electrical faults preventing normal operation of the doorset shall either be automatically or after activation of the doorset detected within 15 s and cause the doorset to automatically open and remain open.

The fail-safe system shall be automatically tested, at least once every 24 h.

Systems using stored electrical energy for fail-safe systems shall have a monitoring system checking that the energy level stored is enough for at least one cycle of operation. This check shall be carried out immediately after connection to the power supply and subsequently at least once every 24 h. If the check failed or was not performed, the doorset shall automatically open and remain open. If the operating mode selector is in the security-locked position, the doorset does not need to open if the requirements of 4.7.2.1 are satisfied.

When the mains power goes off, doorsets shall automatically open at the latest after 5 s and remain in the open position (except when in the security-locked position).

4.7.2.4 Power operated swing doorsets without a break-out function

Power operated swing doorsets without a break-out function shall be capable of manual operation in the direction of escape and need not open automatically in case mains power goes off or in an emergency situation.

The force required to manually open a doorset without a break-out function shall not exceed 150 N. The force shall be measured in a static way at the leading edge at right angles to the doorset leaf and at a height of (1 000 ± 10) mm.

4.7.2.5 Power operated revolving doors

4.7.2.5.1 General

In escape routes and emergency exits, only doorsets with a break out function are allowed. The break out function shall be available in any position of the doorset.

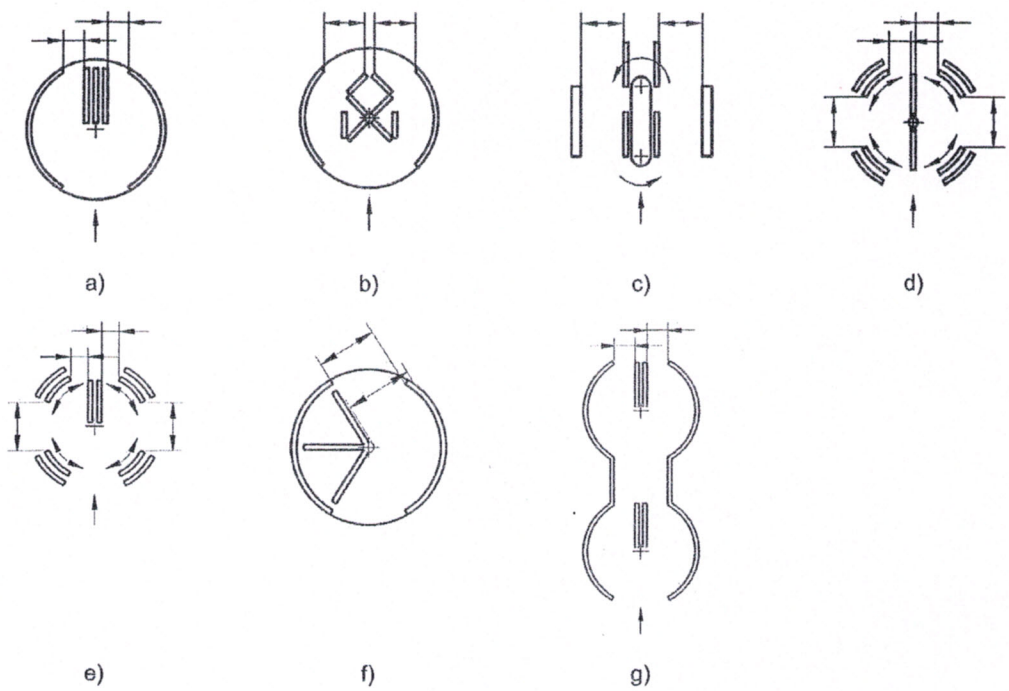

Figure 6 — Typical emergency escape position of power operated revolving pedestrian doorsets