CEN/TC 33 Secretariat

"Doors, windows, shutters, building hardware and curtain walling"

"Portes, fenêtres, fermetures, quincaillerie de bâtiment et façades rideaux"

"Türen, Tore, Fenster, Abschlüsse, Baubeschläge und Vorhangfassaden"

CEN/TC 33 N 3930

2020-05-19

Launching of the Formal Vote on WI 00033575 – EN 17372, Power operated pedestrian swing door drives with self closing function – Requirements and test methods:

- **CEN/TC 33 – Draft Decision D 1399c/2020**
- **Revised draft for the Formal Vote**
- **Follow up of the comments received during the CEN Enquiry**

Action: **Vote CIB – Deadline: 2020-07-01**

Source: CEN/TC 33/WG 9

Comments: I draw your attention: this consultation is the last chance to introduce a technical change. After the Formal Vote, if it is positive, no more technical comments are taken into account for the ratification of the standard.

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CEN/TC 33 Draft Decision D 1399c/2020
Per correspondence
Issue date: 2020-05-19
Deadline: 2020-07-01

SUBJECT: **CEN/TC 33 – WG 9 - FpEN 17372, Power operated pedestrian swing door drives with self closing function – Requirements and test methods- WI 00033575**

DRAFT DECISION 1399c taken by CEN/TC *33* on 2020-07-dd

Subject: Decision on the future of **FprEN 17372** after CEN enquiry

CEN/TC *33, Doors, windows, shutters, building hardware and curtain walling*

- considering CEN/CENELEC Internal Regulations - Part 2, sub-clause 11.2.5, which lays down the rules related to the Formal Vote;
- the work item being approved in the programme of work of the Technical Committee;
- considering resolutions BT 34/2002, BT 42/2003 and related document BT N 6962 concerning timeframes for the development of ENs;

decides to launch the Formal Vote on **FpEN 17372**, Power operated pedestrian swing door drives with self closing function – Requirements and test methods, doc. CEN/TC 33 N 3999 *(target date in Projex stage 45.99, 2020-09-12).*

The decision was taken by *unanimity or simple majority with N positive votes, N negative vote(s) and N abstention(s).*

To vote using CIB

CEN/TC 33

Date: 2020-04-30

FprEN 17372:2020

WI 00033575

Secretariat: AFNOR

Power operated pedestrian swing door drives with self closing function – Requirements and test methods

Antriebe für kraftbetätigte Drehflügeltüren mit Selbstschließfunktion – Anforderungen und Prüfverfahren

Entraînements motorisés de portes battantes pour piétons avec fonction de fermeture automatique – Exigences et méthodes d'essai

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European foreword

This document (FprEN 17372:2020) has been prepared by Technical Committee CEN/TC 33 “Doors, windows. shutters, building hardware and curtain walling”, the secretariat of which is held by AFNOR.

This document is currently submitted to the Formal Vote.

In addition to meeting requirements and test methods of this document, it could be essential that power-operated pedestrian swing door drives with self-closing function satisfy further technical rules (e.g. 2014/30/EU, Electromagnetic compatibility, 2006/42/EC, Machine Directive) in regard to the safety in use and the intended application in buildings.

1 Scope

This document is applicable to power-operated pedestrian swing door drives with self closing function using mechanically stored energy for single and double leaf swing doorsets with or without fire resistance and smoke control characteristics. It defines requirements and test methods for the self-closing function.

This document does not apply to:

— Electrically controlled hold-open systems according to EN 14637;

— Door coordinating devices according to EN 1158;

— Electrically powered hold-open devices for swing doors according to EN 1155.

Requirements and test methods for hold-open systems are not part of this standard.

Additional requirements and test methods for the use of power-operated pedestrian swing door drives with self closing function on double-leaf swing doors are described in EN 1158 and are therefore not part of this standard.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1154, *Building hardware - Controlled door closing devices - Requirements and test methods*

EN 1155, *Building hardware - Electrically powered hold-open devices for swing doors - Requirements and test methods*

EN 16005, *Power operated pedestrian doorsets — Safety in use — Requirements and test methods*

EN ISO 13849-1, *Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1154, EN 1155 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

• IEC Electropedia: available at http://www.electropedia.org/

• ISO Online browsing platform: available at http://www.iso.org/obp

3.1
power-operated pedestrian swing door drive with self-closing function
drive that is equipped with a self-closing function for moving a swing door leaf

3.2
self-closing function
function for closing a swing door leaf by means of mechanically stored energy which is preserved even in case of power failure

3.3
adjustable closing force
in-built function that allows the closing moment of the self-closing function to be adjusted over a range of power sizes

3.4
backcheck
feature that allows a period of decelaration before the final open position of the door leaf is reached

3.5
hold-open system
combination of compatible components which has the function to hold open self-closing fire/smoke control doorsets and, in the case of fire, to release these doorsets for self-closing, at the earliest possible moment

Note 1 to entry: Hold-open systems, according to this document, are intended for the control of individual door assemblies only.

Note 2 to entry: A hold-open system consists at least of a fire detector, a hold-open device, a control unit and a power supply unit. All, or any, of these elements could be in a common enclosure.

3.6
hold-open device
devices of a hold-open system that store the energy required for the closing movement and releases the door leaf to close on request by a triggering mechanism

Note 1 to entry: Common hold-open devices are, for example, magnetic clamps, door drives with magnetic valve and magnetic couplings.

3.7
transom mounting
mounting of the power-operated pedestrian swing door drive with self-closing function to the doorset frame and/or the doorset lintel

3.8
door leaf installation
mounting of the power-operated pedestrian swing door drive with self-closing function to the door leaf

3.9
lock release
electrically activated device that keeps the door leaf closed in a deenergised state and that enables the opening of the door leaf when external power (open circuit principle) is supplied

Note 1 to entry: Common examples are electro-mechanical operated locks according to EN 14846 and striking plates.

3.10
control unit
component of the power-operated pedestrian swing door drive with self-closing function, which processes the signals of activators, external safety devices into opening, closing and stop commands suitable for the drive

Note 1 to entry: Other functions of the control unit includes the control of the lock release, the regulation of the hold-open time and the execution of release signals e.g. caused by manually moving the door leaf out of the hold open position.

3.11
external protection device
additional installed device, electrically connected to the power-operated pedestrian swing door drive with self-closing function, which monitors the swept area of the door leaf and interrupts the movement of the door leaf if a person or an object is within the swing range of the door leaf or if it sends a signal to reverse the door leaf

3.12
activator
means by which the power operation of the doorset is started

Note 1 to entry: It is possible to have "conscious activators" (e.g. switches, manual pushing the door leaf, push-buttons) which are used to consciously open the door leaf and "unconscious activators" (e.g. radar, light barriers, contact mats) where the door leaf is unconsciously open when the monitored zone is entered.

3.13
triggering device
device of a hold-open system that processes a sent signal from devices of this hold-open system and causes the switching off of the drive function when certain criteria are met whereby the self-closing function of the power-operated pedestrian swing door drive with self closing function shall be maintained

3.14
active mode
operating mode in which all actions of the power-operated pedestrian swing door drive with self closing function are controlled by the control unit

3.15
passive mode
operating mode in which the power-driven movement of the door leaf, as well as any hold-open function of the door leaf, will be switched off

3.16
power supply
device of a power-operated pedestrian swing door drive with self-closing function which is used to supply power to e.g. the control unit, motor, protection devices, lock releases, activators and, if applicable, triggering devices

3.17
installation position
position at which a power-operated pedestrian swing door drive with self-closing function is mounted to the doorset

3.18
power-operated
movement performed, at least in one direction, by an external energy supply (e.g. electrically) instead of manual or stored mechanical energy

4 Product characteristics

4.1 General

The materials and the structural design of the power-operated pedestrian swing door drive with self-closing function shall be such that for installation and adjustment according the manufacturer's specification and the intended use the requirements according to 4.2 to 4.3 are fulfilled.

Power operated swing door drives with self-closing function for self-closing doorsets may be mounted only to doorsets that have been prepared for the power-driven operation, e.g. with lock release and triggering mechanism.

The installation and the adjustment of power operated swing door drives with self-closing function shall comply with the manufacturer's specifications.

The maximum door leaf width is relevant for the selection of the power size of a power-operated pedestrian swing door drive with self-closing function.

Due to their low closing torque, power size 1 and 2 power-operated pedestrian swing door drives with self-closing function shall not be used on doorsets with fire resistance and smoke control characteristics.

Table 1 — Power size of power-operated pedestrian swing door drive with self-closing function

Power size	Door leaf width	Weight of test door leaf	Closing torque				Opening torque between 4° and 60°	Efficiency between 0° and 4°
			between 0° and 4°		between 88° and 92°	For any other opening angle		
	mm	kg	Nm	Nm	Nm	Nm	Nm	%
	max.		min.	max	min.	min.	max.	min.
1	750	20	9	13	3	2	26	50
2	850	40	13	18	4	3	36	50
3	950	60	18	26	6	4	47	50
4	1 100	80	26	37	9	6	62	50
5	1 250	100	37	54	12	8	83	50
6	1 400	120	54	87	18	11	134	50
7	1 600	160	87	140	29	18	215	50

NOTE 1 In case of unusually tall or heavy doorsets, windy environmental conditions or special installations the use of higher power sizes can be considered.

NOTE 2 The test door leaf weights are only related to power sizes for the purpose of the test procedure. These test door leaf weights are not intended to indicate max values for actual use.

4.2 Self-closing

4.2.1 Self-closing function during passive mode

During passive mode power-operated pedestrian swing door drives with self-closing function shall function as a controlled door closing device.

A failure of the power supply for the power-operated pedestrian swing door drive with self-closing function and/or functional faults of the power-operated pedestrian swing door drive with self-closing function shall not impair the self-closing function. The door shall start to close and switch into passive mode:

— within no more than 3 s after a triggering signal has been received from the triggering device of the hold-open system;

— within 15 s in case of a mains failure for the power-operated pedestrian swing door drive with self-closing function; or

In case of a functional fault of the power-operated pedestrian swing door drive with self-closing function which will impair the self-closing function, the (functional) fault shall either be detected automatically or within no more than 3 s after a triggering signal has been received from the triggering device of the hold-open system. The reactivation shall only be possible after fixing the fault.

In case the signal paths of the control unit according to 3.10 are used to realize these requirements, then the “Performance Level d“ (category 2) according to EN ISO 13849-1 shall be verified for each relevant signal path.

The relevant signal paths are to be provided by the manufacturer in the form of a block diagram to support the test.

Compliance shall be verified by a test according to 5.2.1.

NOTE The mentioned requirements apply to the self-closing function. This is to ensure that a swing door is closed in case of fire. If a control unit according to 3.10 initiates the switching into the passive mode due to a functional fault (e.g. display, external protection device), this is not to be understood in terms of the previously mentioned requirements as long as a triggering signal of the triggering mechanism or a mains failure continues to switch into passive mode and the self-closing function is not impaired under these requirements.

4.2.2 Reactivation of active mode

The switching from the passive to the active mode of the power-operated pedestrian swing door drive with self-closing function shall be only possible if the triggering signal is no longer present and after a reset is carried out.

NOTE This, for example, will be a reset via a button, the program switch of the drive or the door leaf.

The compliance shall be verified by a test according to 5.2.2.

4.2.3 Opening angle

The opening angle of the door leaf shall be adjustable in the active mode as well as limitable in the passive mode. The power-operated pedestrian swing door drive with self-closing function installed according to the manufacturer's specification shall ensure an opening angle of the door leaf of at least 95° in any operating mode.

The compliance shall be verified by a test according to 5.2.3.

4.2.4 Opening time

The opening time shall be adjustable during the power-driven opening movement in the active mode.

The compliance shall be verified by a test according to 5.2.4

4.2.5 Backcheck in passive mode

In passive mode, backcheck, if available, shall become effective only if the opening angle is > 70°.

The compliance shall be verified by a test according to 5.2.5.

4.2.6 Permanent hold-open function

Power-operated swing door drives with self-closing function that can hold a door leaf permanently open shall be designed in such a way that the test door does not close more than 5° within 48 h in the closing direction after 500 000 test cycles. A power-driven opening within that limit of 5° is permissible.

The compliance shall be verified by a test according to 5.2.6.

4.3 Durability of self-closing function

4.3.1 Durability during active mode

The power-operated pedestrian swing door drive with self-closing function shall open and close the test door according 5.1.1 at least 500 000 times to an opening angle of 90°.

After 500 000 test cycles of the durability test, it shall be possible to adjust the opening time for an opening angle from 0° to 90° to less than 7 s. After 500 000 test cycles in active mode, the closing time during passive mode shall not have increased by more than 100 % and shall not have decreased by more than 30 % compared to the closing time for an opening angle from 90° to 0° measured after 5000 test cycles.

The compliance shall be verified by a test according to 5.3.1.

If the energy store (e.g. the closing spring) is not automatically loaded with each opening of the door leaf, the energy store (e.g. the closing spring) shall be loaded and unloaded over 50 000 cycles for an opening angle of 90°.

The compliance shall be verified by a test according to 5.3.3.

The proof of compliance may be combined with the durability test of the closing damping according to 4.3.3.

4.3.2 Durability during passive mode

Power-operated pedestrian swing door drives with self-closing function shall be such that they function during passive mode as a controlled door closing device. The requirements from Table 1 shall be met after 5 000 and 500 000 cycles of the test according to 5.3.1. After 500 000 test cycles, it is permissible to readjust, if technically possible, the closing torque.

The compliance shall be verified by a test according to 5.3.2.1, 5.3.2.2.

4.3.3 Durability of damped closing

In case the damped closing in passive or active mode is realized via a regenerative damping by using electronic/electrical components or a mechanical damping and if this damped closing is not used during the durability test according to 4.3.1, Clause 1, the reliability of the damped closing shall be verified by 50 000 test cycles in passive mode. Within the scope of the 500 000 cycles durability test the 50 000 test cycles in passive mode shall be performed following the first 5 000 test cycles in active mode. After the 50 000 test cycles, the test is carried on for the remaining 445 000 test cycles in active mode.

The compliance shall be verified by a test according to 5.3.3.

4.3.4 Durability of manual triggering of the hold-open function

It shall be possible to manually release the door leaf from the hold-open position. The release shall be activated by a release button or by moving the door leaf.

In case of a release via the manual release button, the closing movement shall start within 3 s.

In case of a release via the door leaf, the release torque shall be between 40 Nm and 120 Nm.

The compliance shall be verified by a test according to 5.3.5.

4.3.5 Durability - closing time during passive mode

The closing time from 90° to 0°shall be between 4 s and 10 s. The compliance shall be verified by a test according to 5.3.5.

4.3.6 Durability - Behaviour during blocking

In active mode, the power-operated pedestrian swing door drive with self-closing function shall be able to withstand without damage a blocking in the opening and closing direction.

The compliance shall be verified by a test according to 5.3.6.

4.3.7 Durability - Temperature dependency in passive mode

The closing time from 90° to 0° set for an ambient temperature of 20 °C shall not decrease to less than 3 s and not exceed 25 s in case of an ambient temperature between 40 °C and –15 °C.

The compliance shall be verified by a test according to 5.3.7.

4.4 Information for use

The delivery of a power-operated pedestrian swing door drive with self-closing function shall include instructions on the assembly, adjustment, commissioning and maintenance. The product information shall include information on the temperature range of the drive.

The compliance shall be verified by an inspection according to 5.4.

5 Testing, assessment and sampling methods

5.1 Functional test and durability test

5.1.1 General

The sequence of tests is shown in Annex A.

At least 3 power-operated pedestrian swing door drives with self-closing function shall be tested according to 5.1. All installation positions shall be tested. The endurance of accessories (e.g. extended axis) as well as maximum recess depths are to be verified within the scope of the durability tests.

The requirements according to Table 1 for the minimum and maximum power size shall be met for each installation position according to the manufacturer's specifications.

The temperature test according to 5.3.7 shall involve separate test pieces. The temperature test shall be carried out with minimum and maximum power sizes for each installation position.

Weights are to be attached to the test door so that the total weight matches Table 1 for the power size to be tested.

The ambient temperature is to be documented after 5 000 test cycles, if applicable after 55 000 test cycles and after 500 000 test cycles. With the exception of temperature tests, testing shall be performed at an ambient temperature between 15 °C and 30 °C and a relative humidity between 30 % and 70 %.

5.1.2 Test door

The test door with a panel dimension of 1 000 mm x 2 000 mm and a door panel weight, according to Table 1, column 3, shall be warp resistant; it shall be attached, slightly movable in correctly aligned hinges and be able to stay open in any opening position. It is permissible to reduce the height of the test door during the temperature tests. The installation position of the power-operated pedestrian swing door drive with self-closing function on the test door is based on the specifications of the manufacturer. The centre of gravity shall be at half the door height and shall be located 500 mm away from the rotational axis of the hinges or door bearings. All opening and closing forces are measured in 1 m distance from the rotational axis of the door panel using a force measuring device with an error limit of 1,5 % or better.

5.1.3 Installation of the power-operated pedestrian swing door drive with self-closing function

The power-operated pedestrian swing door drive with self-closing function shall be installed to the test equipment according to the specifications of the manufacturer. A lock release is also to be installed. A mechanical connection of the lock release is not provided for the test door.

5.1.4 Test samples, testing and compliance criteria

The number of samples of power-operated pedestrian swing door drives with self closing function to be tested/assessed shall be in accordance with Table 2.

Table 2 — Number of samples to be tested and compliance criteria

Characteristic	Requirement	Assessment method	No. of samples	Compliance criteria
Self closing	4.2.1 – 4.2.6	5.2.1 – 5.2.6	acc. 5.1.1	4.2.1 – 4.2.6
Durability of self closing	4.3.1 – 4.3.7	5.3.1 -5.3.7	acc. 5.1.1	4.3.1 – 4.3.7
Information for use	4.4	5.4	1	4.4

5.1.5 Tolerances

Unless otherwise specified, the following limit deviations apply to the test methods described in this document:

— Weight in kg: ± 2 %;

— Length in mm: ± 2 %;

— Angular position in degrees (°): ± 2;

— Force in N: ± 2 %;

— Time in s: ± 5 %;

— Temperature in °C: ± 3 °C;

— Torque in Nm: ± 2 %.

The ambient temperature of the test room shall be maintained between 15 °C and 30 °C during the test.

5.1.6 Temperature tests

For these tests, the power-operated pedestrian swing door drive with self-closing function is to be disconnected from the power supply. The temperature rate of increase shall be (0,5 ± 0,25) K/min. Prior to the basic settings, the measurements and the tests, the power-operated pedestrian swing door drive with self-closing function is to be exposed to the respective temperature with the temperature limit values inside the temperature-controlled chamber for at least 8 h.

5.2 Self closing tests

5.2.1 Self closing function during passive mode

With the opening angle at 90°, the door leaf is to be held open via the hold-open device. Afterwards, a signal to trigger the hold-open device shall be sent. The time until the beginning of the closing movement is to be recorded. Once the door leaf has completely closed, an opening command for the power-driven opening of the door leaf is to be initiated. As a result, the door leaf shall not open.

The test is to be repeated by switching off main power while the door leaf is held open via the hold-open device.

Relevant signal paths of the control unit of the power-operated pedestrian swing door drive with self-closing function shall be tested according to EN ISO 13849-1 considering 4.2. The results are to be documented in a test report.

5.2.2 Reactivation of active mode

With the opening angle at 90°, the door leaf is to be held open via the hold-open device. Afterwards, a signal to trigger the hold-open device shall be sent. Once the door leaf has completely closed, an opening command for the power-driven opening of the door leaf is to be initiated. As a result, the door leaf shall not open.

A reset is to be carried out, and it shall be checked whether the automatic function of the power-operated pedestrian swing door drive with self-closing function is available again. With the opening angle at 90°, the door leaf is to be held open again via the hold-open device. Afterwards, the power supply is to be disconnected. Once the door leaf has completely closed, the energy supply is to be turned on again and an opening command for the power-driven opening of the door leaf is to be initiated. As a result, the door leaf shall not open.

A reset is to be carried out, and it has to be checked whether the automatic function of the power-operated pedestrian swing door drive with self-closing function is available again.

5.2.3 Opening angle

After 5 000 test cycles, it shall be checked whether the opening angle is adjustable for the active mode within the range specified by the manufacturer and whether it can be limited for the passive mode. An opening angle of at least 95° shall also be adjusted for each installation position and in the active and passive mode. The opening angles shall be documented.

5.2.4 Opening time

After 5 000 test cycles, it shall be checked whether the opening time in active mode can be adjusted within the range specified by the manufacturer. The opening times shall be documented.

5.2.5 Backcheck in passive mode

After 5 000 test cycles, the backcheck function, if available, is checked by accelerating the door up to an opening angle of 50° in such a way that it achieves an opening angle of at least 90° without a damped opening adjusted on the power-operated pedestrian swing door drive with self-closing function. The power-operated pedestrian swing door drive with self-closing function is in passive mode. Afterwards, the backcheck is to be adjusted on the power-operated pedestrian swing door drive with self-closing function within the limits specified by the manufacturer. The opening angle for which the backcheck becomes visibly effective is to be documented and shall be > 70°.

5.2.6 Permanent hold-open function

The test is to be carried out for the normal installation position specified by the manufacturer. The door leaf is to be brought into the 90° open position via the continuous open function of the power-operated pedestrian swing door drive with self-closing function and to be kept there for 48 h. The requirements of 4.2.6 shall be fulfilled. After 48 h, the opening angle shall be documented.

Afterwards, a signal to trigger the hold-open device shall be sent and it shall be checked that the door closes.

5.3 Durability of self-closing tests

5.3.1 Durability during active mode

The power-operated pedestrian swing door drive with self-closing function shall be adjusted to the maximum power size. The closing torque is to be adjusted as close as possible to the minimum closing torques specified in Table 1. It has to be ensured that the minimum closing torques provided in the columns 4, 6 and 7 in Table 1 can be reliably achieved. For the durability test, the drive is to be adjusted so that the door leaf, depending on the weight of the door leaf, is opened within 3 s to 7 s to 90° and also closed within 3 s to 7 s. The length of stay in the 90° open position can be adjusted according to the specifications of the manufacturer but shall not exceed 7 s. The time in the closed position shall not exceed 3 s. The opening and closing times are to be documented. In active mode, an opening command for the drive is to be triggered in the closed position.

After 5 000 and 500 000 test cycles, the requirements of 4.3.1 shall be fulfilled.

The opening and closing times, as well as the ambient temperature, shall be document after the durability test.

5.3.2 Durability during passive mode

5.3.2.1 Opening and closing torques

After 5 000 and 500 000 cycles, the opening and closing torques shall fulfill the requirements of 4.1 Table 1. The measurements are to be performed in the following way:

The surface of the swing door drive body shall have cooled down to the ambient temperature. The devices for adjusting the closing speed (e.g. control valves, potentiometers) have to be adjusted to the maximum closing speed. The opening and closing times of the power-operated pedestrian swing door drive with self-closing function are to be measured. The forces are measured continuously and graphically illustrated during a slow (not faster than 1 °/s ± 0,2 °/s) opening and closing of the test door using a measurement value logging device perpendicular to the door leaf over the entire opening angle with a scanning rate of at least 20 Hz. Using the recorded measurement values, the maximum value for the opening and closing between 0° and 4°, the maximum value for the opening between 4° and 60°, the maximum value for the closing between 92° and 88° as well as the minimum value for the closing between the maximum opening angle until an opening angle 0° is to be determined according to the specifications of the manufacturer. It is permissible to form the arithmetic average values from the measurement values within a window of 0,2°. Unless a measurement value logging device is used, 3 measurements shall be performed.

5.3.2.2 Efficiency

For each test piece, the efficiency in % is to be calculated as follows:

$$\eta = \frac{F_{close\ 0°-4°}}{F_{open\ 0°-4°}} \times 100\ \%$$

Where

η	efficiency in %
$F_{close\ 0°-4°}$	measurement value recorded according 5.3.2.1 for the closing force between 0° and 4°
$F_{open\ 0°-4°}$	measurement value recorded according 5.3.2.1 for the opening force between 0° and 4°

After 5 000 and 500 000 cycles the efficiency shall fulfill the requirements of 4.1 Table 1.

5.3.3 Durability of the damped closing

In case the damped closing in passive or active mode is realized via a regenerative damping by using electronic/electrical components or a mechanical damping and if this damped closing is not used during the durability test according to 4.3.1, Clause 1, 50 000 test cycles have to be carried out in passive mode. The closing time is to be set according to 4.3.5. The function is checked by opening the door leaf of the test door up to an opening angle of at least 90° and by closing in passive mode. After 50 000 test cycles in passive mode, the closing time from 90° to 0° shall fulfill the requirements of 4.3.5.

5.3.4 Durability of manual triggering of the hold-open function

The durability of the manual triggering of the hold-open function is checked by initiating an opening command for the power-operated opening according the settings in 5.3.1. With the opening angle at 90°, the door leaf is to be held open via the hold-open device for minimum 3 s. Afterwards, a release is to be initiated.

— In case a release button is used, the release is to be initiated by pressing the button.

— In case of a release activated by moving the door leaf, the relevant force to reach the torque between 40 Nm and 120 Nm at the pivoting axis shall be applied in a right angle at the main closing edge of the door leaf at a height of 1 m.

Once the door leaf has completely closed, the necessary reset is to be carried out and a new opening command for the power-driven opening of the door leaf is to be initiated.

When the hold open function is realized by a mechanical device, 5 000 of these test cycles shall be performed. The force needed to move the door is only measured during the first and the last cycle of this test.

When the hold open function is realized by non-mechanical devices, it is checked once after 5 000 and 500 000 cycles that the manual triggering of the hold-open function fulfills the requirements of 4.3.4. The results shall be documented.

Note The manual release via a release button can be simulated by activating the corresponding signal input.

5.3.5 Durability of closing time during passive mode

After 5 000 and 500 000 cycles the closing time that the door leaf of the test door requires in order to completely close after a 90° opening is to be measured. Before measuring the closing time, the surface of the swing door drive body shall have cooled down to the ambient temperature.

The door leaf shall be opened to an opening angle of 90° and shall be enabled for the closing. The closing time of the power-operated pedestrian swing door drive with self-closing function from 90° to 0° shall fulfilll the requirements of 4.3.5. The results shall be documented.

5.3.6 Durability - Behaviour during blocking

After 5 000 test cycles, the door leaf is to be permanently locked by mechanical means in the closed state. An opening pulse for the power-driven opening of the door leaf is to be triggered. The blocking is to be removed 60 s after the triggering of the opening pulse. There shall be no damage impairing the normal function of the power-operated pedestrian swing door drive with self-closing function. A reset to reactivate the drive might be necessary. The test is to be repeated with a mechanical blocking of the door leaf at 45° in the opening and closing direction. The test sequence shall be performed 3 times. The results shall be documented.

5.3.7 Durability - Temperature dependency in passive mode

The temperature is to be stabilized to 20 °C. After the stabilization in the temperature range, the door leaf shall be opened smoothly within 4 s to 6 s to 90° and then enabled for the closing. The closing time from an opening angle of 90° to the completely closed position is measured. This test sequence shall be performed 3 times. In case the closing time for the power-operated pedestrian swing door drive with self-closing function cannot be set, then it is to be checked whether the set closing time is between 4 s and 10 s. The average of the 3 measurements is to be documented.

Without readjusting the closing time, the temperature is decreased to −15 °C. After a stabilization at −15 °C, the door leaf shall be opened smoothly to 90° within 4 s to 6 s and then enabled for the closing. The closing time from an opening angle of 90° to the completely closed position is measured. This test shall be repeated 3 times. The average of the 3 measurements is to be documented. The requirements of 4.3.7 shall be fulfilled.

Without readjusting the closing time, the temperature of the power-operated pedestrian swing door drive with self-closing function is increased to 40 °C. After a stabilization at 40 °C, the door leaf shall be opened smoothly within 4 s to 6 s to 90° and then enabled for the closing. The closing time from an opening angle of 90° to the completely closed position is measured. This shall be repeated 3 times. The average of the 3 measurements is to be documented. The requirements of 4.3.7 shall be fulfilled.

5.4 Inspection of Information for use

It shall be checked whether the instructions for the assembly, adjustments, commissioning and maintenance is available and suitable. Product information on the temperature range according to 4.4 shall be provided.

It is checked whether the power-operated pedestrian swing door drive with self-closing function with self-closing function has been labelled according to Clause 6.

6 Marking and labelling

6.1 Marking

According to this document, each power-operated pedestrian swing door drive with self-closing function shall have permanently attached to it

— marking according to EN 16005

— the power size of the power-operated pedestrian swing door drive with self-closing function or the power size range.

The labelling can be located underneath a cover.

Annex A
(normative)

Flow diagram test sequence functional test and durability test

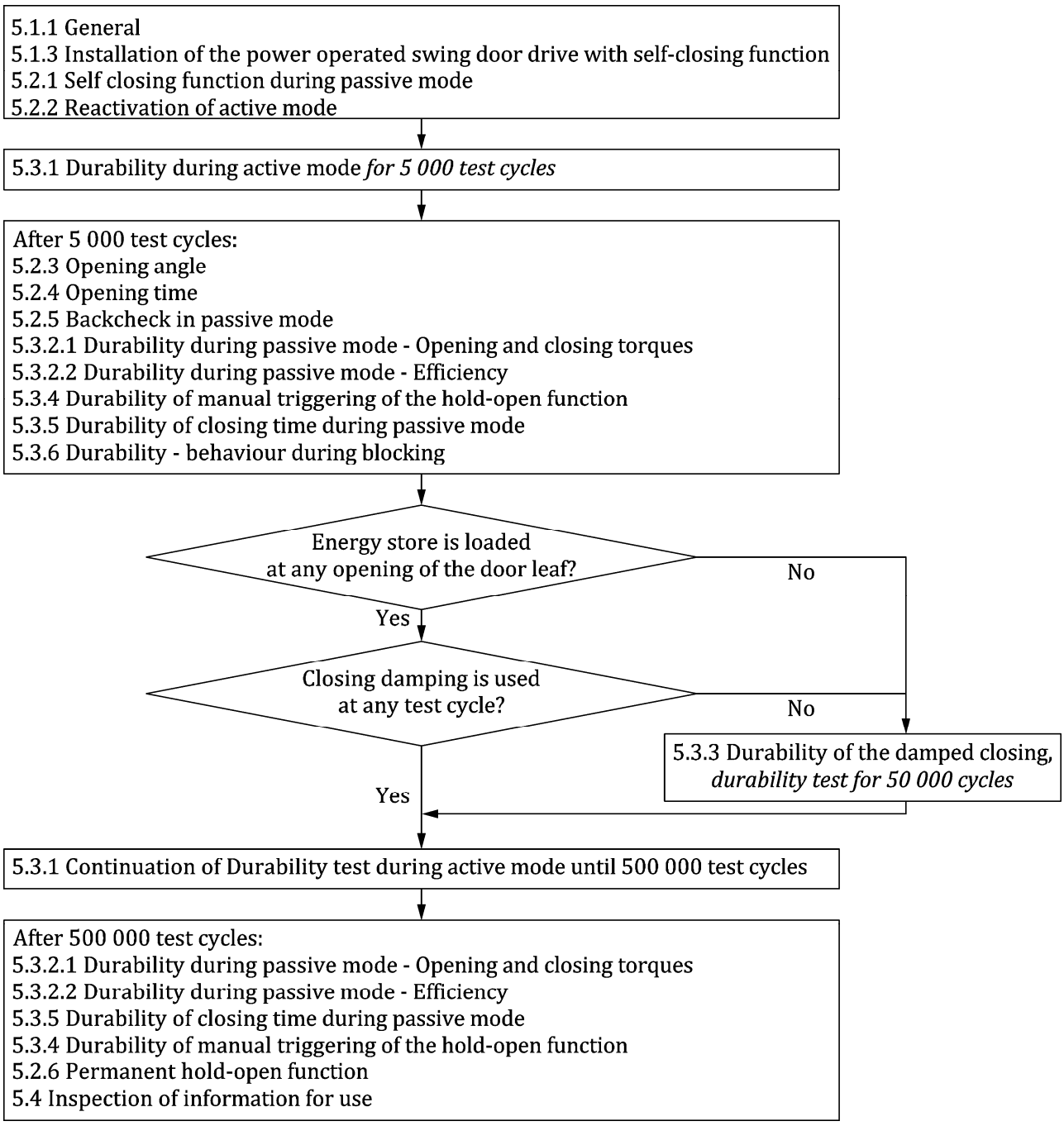

Figure A.1 — Flow diagram test sequence functional test and durability test

Annex B
(informative)

Overview of tests and related requirements

Table B.3 — Overview of tests and related requirements

5. Tests	Requirements
5.2 Self-closing tests	
5.2.1 Self-closing during passive mode	4.2.1
5.2.2 Reactivation of active mode	4.2.2
5.2.3 Opening angle	4.2.3
5.2.4 Opening time	4.2.4
5.2.5 Backcheck in passive mode	4.2.5
5.2.6 Permanent hold-open function	4.2.6
5.3 Durability of self-closing tests	
5.3.1 Durability during active mode	4.3.1
5.3.2.1 Durability during passive mode – Opening and closing torques	4.3.2
5.3.2.2 Durability during passive mode - Efficiency	4.3.2
5.3.3 Durability of the damped closing	4.3.1, 4.3.3, 4.3.5
5.3.4 Durability of manual triggering of the hold-open function	4.3.4
5.3.5 Durabilty of closing times during passive mode	4.3.1, 4.3.5
5.3.6 Durability - Behaviour during blocking	4.3.6
5.3.7 Durability - Temperature dependency in passive mode	4.3.7
5.4 Inspection of information for use	4.4

Bibliography

EN 1158, *Building hardware — Door coordinator devices — Requirements and test methods*

EN 14637, *Building hardware — Electrically controlled hold-open systems for fire/smoke door assemblies — Requirements, test methods, application and maintenance*

EN 14646, *Building hardware — Locks and latches — Electromechanically operated locks and striking plates — Requirements and test methods*

CEN/TC 33 Secretariat

"Doors, windows, shutters, building hardware and curtain walling"

"Portes, fenêtres, fermetures, quincaillerie de bâtiment et façades rideaux"

"Türen, Tore, Fenster, Abschlüsse, Baubeschläge und Vorhangfassaden"

CEN/TC 33 N 3800

2019-06-28

Result of the CEN Enquiry on EN 17372, 00033575

Power operated pedestrian swing door drives with self closing function - Requirements and test methods

➔ Approved by NSBs with technical and editorial comments

Action: For information

Source: NSBs

Comments: **Next step: examination of the comments by WG 9 and preparation of the final draft for the Formal Vote.**

afnor NORMALISATION

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Voting Results

Ballot Information	
Ballot reference	**prEN 17372**
Ballot type	**ENQ (Enquiry)**
English title	**Power operated pedestrian swing door drives with self closing function - Requirements and test methods**
French title	
German title	**Antriebe für kraftbetätigte Drehflügeltüren mit Selbstschließfunktion - Anforderungen und Prüfverfahren**
Work item Id	**68654**
Work item number	**00033575**
Procedure iteration	**1**
Vienna agreement status	**None**

Committee reference	**CEN/TC 33**
Committee secretariat	**France (AFNOR)**
Opening date	**2019-04-04**
Initial closing date	**2019-06-27**
Closing date	**2019-06-27**
Note	

Result of voting

(National Members having abstained are not counted in this vote.)

Approved by National Members

National Members approving: 17
National Members disapproving: 0
Number of Members approving: 100.000 % (requirement >= 55 %)
Weighted percentage of Population approving: 100.000 % (requirement >= 65 %)

Member responses	
Votes cast (33)	Austria (ASI) Belgium (NBN) Bulgaria (BDS) Croatia (HZN) Cyprus (CYS) Czech Republic (UNMZ) Denmark (DS) Estonia (EVS) Finland (SFS) France (AFNOR) Germany (DIN) Greece (NQIS ELOT) Hungary (MSZT) Iceland (IST) Ireland (NSAI) Italy (UNI) Latvia (LVS) Lithuania (LST) Malta (MCCAA) Netherlands (NEN) North Macedonia (ISRSM) Norway (SN) Poland (PKN) Portugal (IPQ) Romania (ASRO) Serbia (ISS) Slovakia (UNMS SR) Slovenia (SIST) Spain (UNE) Sweden (SIS) Switzerland (SNV) Turkey (TSE) United Kingdom (BSI)
Comments submitted (0)	
Votes not cast (1)	Luxembourg (ILNAS)

Questions	
Q.1	Do you approve this draft as a European Standard
Q.2	Do you agree with the proposed implementation periods?
Q.3	Do you have any comments ?
Q.4	National legislation/administrative deviation

Vote Matrix					
	Date	**Q.1**	**Q.2**	**Q.3**	**Q.4**
Austria (ASI), Member, Inside EEA	2019-06-18	Yes	Yes	No	No Answer
Belgium (NBN), Member, Inside EEA	2019-06-27	Yes	Yes	No	No Answer
Bulgaria (BDS), Member, Inside EEA	2019-06-18	Yes	Yes	No	No
Croatia (HZN), Member, Inside EEA	2019-06-21	Abstains	Abstain	No	No Answer
Cyprus (CYS), Member, Inside EEA	2019-05-27	Abstains	Yes	No	No Answer
Czech Republic (UNMZ), Member, Inside EEA	2019-06-27	Yes	Yes	No	No
Denmark (DS), Member, Inside EEA	2019-06-25	Abstains	Abstain	No	No Answer
Estonia (EVS), Member, Inside EEA	2019-06-17	Abstains	Abstain	No	No Answer
Finland (SFS), Member, Inside EEA	2019-06-04	Abstains	Yes	No	No Answer
France (AFNOR), Secretariat, Inside EEA	2019-06-25	Yes	Yes	Yes	No
Germany (DIN), Member, Inside EEA	2019-06-18	Yes	Yes	Yes	No Answer
Greece (NQIS ELOT), Member, Inside EEA	2019-05-17	Yes	Yes	No	No Answer
Hungary (MSZT), Member, Inside EEA	2019-06-17	Yes	Abstain	No	No Answer
Iceland (IST), Member, Inside EEA	2019-06-25	Abstains	Yes	No	No
Ireland (NSAI), Member, Inside EEA	2019-06-24	Yes	Yes	No	No
Italy (UNI), Member, Inside EEA	2019-06-17	Yes	Yes	Yes	No
Latvia (LVS), Member, Inside EEA	2019-06-20	Abstains	Yes	No	No Answer
Lithuania (LST), Member, Inside EEA	2019-06-13	Yes	Yes	No	No Answer
Luxembourg (ILNAS), Member, Inside EEA	Not Voted	-	-	-	-
Malta (MCCAA), Member, Inside EEA	2019-05-13	Abstains	Yes	No	No
Netherlands (NEN), Member, Inside EEA	2019-06-13	Yes	Yes	No	No Answer
North Macedonia (ISRSM), Member, Outside EEA	2019-06-18	Abstains	Abstain	No	No Answer
Norway (SN), Member, Inside EEA	2019-04-04	Yes	Yes	No	No Answer

Vote Matrix					
	Date	**Q.1**	**Q.2**	**Q.3**	**Q.4**
Poland (PKN), Member, Inside EEA	2019-06-26	Yes	Yes	No	No Answer
Portugal (IPQ), Member, Inside EEA	2019-06-26	Abstains	Abstain	No	No
Romania (ASRO), Member, Inside EEA	2019-06-27	Abstains	Abstain	No	No
Serbia (ISS), Member, Outside EEA	2019-06-17	Abstains	Abstain	No	No Answer
Slovakia (UNMS SR), Member, Inside EEA	2019-06-20	Abstains	Abstain	No	No
Slovenia (SIST), Member, Inside EEA	2019-06-24	Yes	Yes	No	No
Spain (UNE), Member, Inside EEA	2019-06-04	Yes	Yes	No	No
Sweden (SIS), Member, Inside EEA	2019-06-12	Abstains	Abstain	No	No Answer
Switzerland (SNV), Member, Outside EEA	2019-06-14	Abstains	Abstain	No	No Answer
Turkey (TSE), Member, Outside EEA	2019-06-25	Abstains	Abstain	No	No Answer
United Kingdom (BSI), Member, Inside EEA	2019-06-26	Yes	Yes	Yes	No

Answers to Q.1: "Do you approve this draft as a European Standard"		
17 x	**Yes**	Austria (ASI), Belgium (NBN), Bulgaria (BDS), Czech Republic (UNMZ), France (AFNOR), Germany (DIN), Greece (NQIS ELOT), Hungary (MSZT), Ireland (NSAI), Italy (UNI), Lithuania (LST), Netherlands (NEN), Norway (SN), Poland (PKN), Slovenia (SIST), Spain (UNE), United Kingdom (BSI)
0 x	**No**	
16 x	**Abstains**	Croatia (HZN), Cyprus (CYS), Denmark (DS), Estonia (EVS), Finland (SFS), Iceland (IST), Latvia (LVS), Malta (MCCAA), North Macedonia (ISRSM), Portugal (IPQ), Romania (ASRO), Serbia (ISS), Slovakia (UNMS SR), Sweden (SIS), Switzerland (SNV), Turkey (TSE)

Answers to Q.2: "Do you agree with the proposed implementation periods?"		
12 x	**Abstain**	Croatia (HZN), Denmark (DS), Estonia (EVS), Hungary (MSZT), North Macedonia (ISRSM), Portugal (IPQ), Romania (ASRO), Serbia (ISS), Slovakia (UNMS SR), Sweden (SIS), Switzerland (SNV), Turkey (TSE)
21 x	**Yes**	Austria (ASI), Belgium (NBN), Bulgaria (BDS), Cyprus (CYS), Czech Republic (UNMZ), Finland (SFS), France (AFNOR), Germany (DIN), Greece (NQIS ELOT), Iceland (IST), Ireland (NSAI), Italy (UNI), Latvia (LVS), Lithuania (LST), Malta (MCCAA), Netherlands (NEN), Norway (SN), Poland (PKN), Slovenia (SIST), Spain (UNE), United Kingdom (BSI)
0 x	**No**	

Answers to Q.3: "Do you have any comments ?"		
4 x	**Yes**	France (AFNOR), Germany (DIN), Italy (UNI), United Kingdom (BSI)
29 x	**No**	Austria (ASI), Belgium (NBN), Bulgaria (BDS), Croatia (HZN), Cyprus (CYS), Czech Republic (UNMZ), Denmark (DS), Estonia (EVS), Finland (SFS), Greece (NQIS ELOT), Hungary (MSZT), Iceland (IST), Ireland (NSAI), Latvia (LVS), Lithuania (LST), Malta (MCCAA), Netherlands (NEN), North Macedonia (ISRSM), Norway (SN), Poland (PKN), Portugal (IPQ), Romania (ASRO), Serbia (ISS), Slovakia (UNMS SR), Slovenia (SIST), Spain (UNE), Sweden (SIS), Switzerland (SNV), Turkey (TSE)

Answers to Q.4: "National legislation/administrative deviation"		
0 x	**Yes**	
13 x	**No**	Bulgaria (BDS), Czech Republic (UNMZ), France (AFNOR), Iceland (IST), Ireland (NSAI), Italy (UNI), Malta (MCCAA), Portugal (IPQ), Romania (ASRO), Slovakia (UNMS SR), Slovenia (SIST), Spain (UNE), United Kingdom (BSI)
20 x	**No Answer**	Austria (ASI), Belgium (NBN), Croatia (HZN), Cyprus (CYS), Denmark (DS), Estonia (EVS), Finland (SFS), Germany (DIN), Greece (NQIS ELOT), Hungary (MSZT), Latvia (LVS), Lithuania (LST), Netherlands (NEN), North Macedonia (ISRSM), Norway (SN), Poland (PKN), Serbia (ISS), Sweden (SIS), Switzerland (SNV), Turkey (TSE)

Comments from Voters	
France (AFNOR) Cast by Quentin, Corinne Mme	
Comment File	prEN 17372_AFNOR.docx
Germany (DIN) Cast by Committee Service Centre, DIN -	
Comment File	prEN 17372_DIN.docx
Italy (UNI) Cast by De Gregorio, Marco Mr	
Comment File	prEN 17372_UNI.doc
United Kingdom (BSI) Cast by Desta, Asky Ms	
Comment File	prEN 17372_BSI.doc

Template for comments and secretariat observations

Date: 2019-06-28	Document: CEN/TC 33 N 3800	Project: prEN 17372

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
AFNOR 001		01		ge	Chapter 1, it appears that this document only applies to assemblies with fire and smoke resistance characteristics, yet the title of the standard largely suggests a much more comprehensive approach. adequacy to be made between the title and the content of the standard	Replace « … with fire resistance and smoke control characteristics. » par « which may have fire resistance and smoke control characteristics. »	Agreed in principel Modify to: "with or without fire and smoke resistance characteristics"
DE 002		01	1st paragraph	ge	Shouldn't the wording be "This document is applicable to …"" (see ISO/IEC Directives Part 2:2018, 14.5)?	Please check.	Agreed
DE 003		02		ge	Ensure that all documents are up to date.	Please ensure.	Agreed
IT1 004		03.04		ed	*…before the final opening position of the door leaf is reached* We suggest to improve the wording	Modify as follows …before the final open position of the door leaf is reached	Agreed
IT2 005		03.05		ed	*…which has the function to hold open self-closing fire/smoke control doors…* We suggest to improve and to aling the wording	Modify as follows …which has the function to hold in the open position the doors…	Rejected. Sentence is clear.
AFNOR 006		03.05		ed	« … which has the function to hold open self-closing fire/smoke control doors, … » Are we talking about door or doorset ?	Replace by : « … which has the function to hold open self-closing fire/smoke control doorsets… » Replace « door » by « doorset » in the hole document to fulfil with EN 16005 and EN 16361.	Agreed
IT3 007		03.06		ed	*…devices of a hold-open system that store the energy required for the closing and releases the door leaf to close on request by a triggering mechanism* We suggest to improve the wording	Modify as follows …device of a hold-open system that stores the energy required for the closing movement and releases the door leaf to close on request by a triggering mechanism	Rejected. Sentence is clear.

1 **MB** = Member body / **NC** = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)
2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
IT4 008		03.09		te	*electrically activated device that keeps the door leaf closed in a deenergised state and that enables the opening of the door leaf when external power (open circuit principle) is supplied*		Rejected as no proposal is made ini the comment.
DE 009		03.09	Note 1	ed	Wrong expressions „door opener or motor locks“	Change to: „electro-mechanical operated locks according to EN 14846 and striking plates”	Agreed
IT5 010		03.10		ed	*device connected to the power-operated pedestrian swing door drive with self-closing function, which executes the commands of activators, external safety devices into opening, closing and stop commands suitable for the operator* We suggest to improve the definition, taking into account the analogue definition given in EN14637 (3.3)	Modify as follows *component of the hold-open system that processes the signals emitted by activators or, generating proper instruction for the power-operated pedestrian swing door drive with self-closing function*	Agreed in principal. Modify: Component of the power-operated pedestrian swing door drive with self-closing function which processes the signals of…
IT6 011		03.11		ed	*…swing range* We suggest to improve the wording	Modify as follows swept area	Agreed
IT7 012		03.12	Note 1	ed	The wording 'conscious/unconscious' is quite interpretable. We suggest to delete the note which doesn't confer added value to the definition		Rejected. Note is helpful and clear.
IT8 013		03.13			*device of a hold-open system that processes a sent signal from devices of this hold-open system and causes the shut down of the operator function when certain criteria are met whereby the self-closing function of the power-operated pedestrian swing door drive with self-closing function shall be maintained* The definition is not clear and is not used in the standard. We suggest to improve the wording or to delete the definition.	Modify as follows device of a hold-open system that receives the signal processed by the control unit and act on the power-operated pedestrian swing door drive with self-closing function. or delete the definition.	Rejected as the term is used several times in the standard. But improve definition to: …and causes the switching off of the operator function...
AFNOR 014		03.13			The example « Note 1 to entry: Triggering devices include, for example, fire detectors. » is not good	Modify the example	Agreed in principal – Note will be deleted.

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2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					because detectors detect but do not trigger motion		
IT9 015		03.15		ed	*… operating mode in which the power-driven movement of the door leaf, as well as any hold-open function of the door leaf, will be switched off* We suggest to improve the wording	Modify as follows … operating mode in which the power-driven movement of the door, as well as any hold-open function, is switched off	Rejected. See AFNOR 006. The door leaf is moving not the whole doorset.
IT10 016		03.17		ed	*… to the door construction* The specification is unnecessary.	Delete *…to the door construction*	Agreed in principal. “construction” will be deleted and “door” changed to “doorset”.
IT11 017		03.18		ed	*power-operated* It's opportune to specify 'movement'.	Modify as follows power-operated movement	Rejected. A term can’t be defined by itself.
IT12 018		04		ed-te	The reading and the comprehension of the entire clause is quite difficult, due to a non-linearity of the exposition. We suggest to revise the clause		Rejected. But see DE21, IT14, IT15 for improvements
AFNOR 019		04.01			This table is based on that of EN 1154 (mechanical door closer). In EN 1154, Annex A, it is stated that "Due to their low closing torque, grade 1 and 2 door closers must NOT be considered suitable for use on fire and/or smoke-proof door units".	Force 1 and 2 not allowed ? Add a Note 3 with the commentary to EN 1154 "Due to their low closing torque, grade 1 and 2 door closers should NOT be considered suitable for use on fire-resistant and/or smoke-proof door units".	Agreed in principal. But content of the note will be transferred in normative requirement (use “shall not be used” instead of “should…”)
IT13 020		04.01	1 §	ed	*The materials and the structural design of the power-operated pedestrian swing door drive with self-closing function shall be such that for installation and adjustment according the manufacturer's specification and the intended use the requirements according to 4.2 to 4.3 are fulfilled* We suggest to improve the wording and the structure of the sentence.	Modify as follows Power-operated pedestrian swing door drive with self-closing function shall comply with the requirements of this clause. Power-operated pedestrian swing door drive with self-closing function shall be designed, constructed, installed, operated and properly maintained to meet the requirement of this clause.	Rejected. Proposal has not the same meaning.
DE 021		04.01	New para	te	Some information about the installation of power operated pedestrian swing door operators should	Add the following text after the first paragraph:	Agreed

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2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					be added.	Automatic swing door operators with self-closing function for self-closing doors may be mounted only to doors that have been prepared for the power-driven operation, e.g. with lock release and triggering mechanism. The installation and the adjustment of automatic swing door operators with self-closing function shall comply with the manufacturer's specifications.	
DE 022		04.01	Table1	Ed	EN classes 1+2 are not relevant	Remove powersize 1 and 2 from table	See AFNOR 019 Powersize 1 and 2 might be used on non fire and smoke resistance doors.
IT14 023		04.02.1	1§	ed	*Power-operated pedestrian swing door drive with self-closing function shall be such that they function during passive mode as a controlled door closing device.* We suggest to improve the wording.	Modify as follows During passive mode power-operated pedestrian swing door drive with self-closing function shall function as a controlled door closing device.	Agreed
IT16 024		04.02.1	2§	ed	*…shall not negatively affect the self-closing function* It's not clear what 'negatively' means: the concept should be explicated.		Agreed in principal. Replace “negatively affect” by “impair”
IT15 025		04.02.1	2§	ed	We suggest to move the content of the third in the text of the paragraph due to the fact that the premises are different from those of the first and second indent. We also suggest to improve the wording.	Modify as follows A failure of the power supply for the power-operated pedestrian swing door drive with self-closing function and/or functional faults of the power-operated pedestrian swing door drive with self-closing function shall not negatively affect the self-closing function. The door shall close and switch into passive mode: — within no more than 3 s after a triggering signal has been received from the triggering device of the hold-open system; — within 15 s in case of a mains failure for the	Agreed

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2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
						power-operated pedestrian swing door drive with self-closing function; or In case of a functional fault of the power-operated pedestrian swing door drive with self-closing function which will affect the self-closing function, the (functional) fault shall either be detected automatically or within no more than 3 s after a triggering signal has been received from the triggering device of the hold-open system. The reactivation shall only be possible after fixing the fault.	
UK 026	4	04.02.1	2nd para	TE	The door shall close. Is this start to close or be fully closed	Clarification needed	Agreed Modify sentence to: “The door shall start to close and switch into passive mode:”
AFNOR 027		04.02.1	3	te	« In case the signal paths of the control unit … shall be verified for each relevant signal path.» Why not use the same sentence that EN 16005 ? Indeed, the risk here is the non-closure of the door in case of fire, so it is the closing function that seems to require the performance level d.	EN16005 (§4.7.2.3). Replace « In case the signal paths of the control unit according to 3.10 are used to realize these requirements, then the “Performance Level d“ (category 2) according to EN ISO 13849-1 shall be verified for each relevant signal path.» By « The closing of the door unit shall be guaranteed by a fail-safe system complying with performance level "d" of EN ISO 13849-1 and any electrical failure preventing the normal operation of the door unit shall be detected automatically or after activation of the door unit in 15 s and shall ensure that the door unit closes automatically and remains closed. »	Rejected. Requirement is clear and suitable.
IT17 028		04.02.1	4§	te	*…by the testing authority.* The request of a testing authority cannot be put in a standard.	Delete …by the testing authority.	Agreed in principal. Delete the whole sentence.

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Template for comments and secretariat observations

Date: 2019-06-28	Document: CEN/TC 33 N 3800	Project: prEN 17372

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
UK 029	5	04.02.1	6th and 7th para	TE	Does the signal path include the wiring external to the rive unit, ie wiring to the fire alarm	Clarification needed	Rejected. Standard deals only with the drive. The wiring requirements are dealt with in other standards.
IT18 030		04.02.1	Note 1	te	The note is not clear: the 'reset' is not defined in the text (it should be defined) and If it has to be a requirements it shall be moved into a new paragraph.		Agreed to delete the note.
IT19 031		04.02.1	Note 2	te	The note is not clear.		Rejected. Contains useful information.
UK 032	6	04.02.2		TE	The standard states “The switching from the passive to the active mode of the power operated pedestrian swing door drive with self-closing function shall be carried out only via a manual reset on the device or in the visible door area. NOTE This, for example, shall be a reset via a button, the program switch of the operator or the door leaf. The compliance shall be verified by a test according to 5.2.2.” We have many building in the UK with over 300 fire rated swing doors fitted which are linked to one central fire alarm system. So, on one signal all 300 of the doors will go into passive mode. It is not practical that every time they do a fire alarm check, which should be carried out weekly in the UK on commercial buildings, the door will stay inactive until someone presses a button at all door locations	Suggest we state that switching from passive to active mode can only be allowed once the system which has switched the door into passive state is fully reset.	Agreed in principal. Modify the sentence to: “The switching from the passive to the active mode of the power operated pedestrian swing door drive with self-closing function shall be only possible if the triggering signal is no longer present and after a reset.
AFNO		04.02.2		te	An untimely activation of the switch to active mode	Mention that the passive mode is the highest	Agreed in principal.

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R 033					is likely to create the feared event. It therefore seems curious that no priority between passive and active mode is addressed and that no level of performance is required for the switch to active mode.	priority (i.e. impossible to reactivate as long as the trigger signal is present). Mention a performance level for the reset function. Replace "The switching from the passive to the active mode of the power-operated pedestrian swing door drive with self-closing function shall be carried out only via a manual reset on the device or in the visible door area.» By "For the doorsets concerned with a level of safety (e. g. fire resistance), the rearming of the operating mode must be carried out by voluntary action at the local level or by action common to several doors in the same subdivision zone. The reset function must achieve a performance level "d". »	See UK 32
DE 034		04.02.2	Note	ge	Should the NOTE be an EXAMPLE?	Please check.	Should stay as a note
IT20 035		04.02.3		ed	*…shall be adjustable for the active mode as well as limitable for the passive mode.* We suggest to improve the wording.	Modify as follows *…shall be adjustable in the active mode as well as limitable in the passive mode.*	Agree
UK 036	7	04.02.3	1st para	TE	Why is 95 degrees opening stipulated	Change to 90 degrees	Rejected. 95 is in due to handles etc on the door leaf.
IT21 037		04.02.4		ed	*…during the power-driven opening in the active mode* We suggest to improve the wording.	Modify as follows *…during the power-driven opening movement in the active mode*	Agree

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IT23 038		04.02.6		ed	*A power-driven opening within that limit of 5° is permissible.* The sentence is redundant.	Delete the sentence.	Rejected. Sentence not redundant.
IT22 039		04.02.6		ed	*Power-operated swing door operators with self-closing function…* We suggest to align the wording.	Modify as follows *Power-operated swing door drives with self-closing function…*	Agreed
IT24 040		04.03		ed	*Durability of self-closing* We suggest to improve the wording	Modify as follows Durability of self-closing function	Agreed
IT28 041		04.03.1		ed	*If the energy store (e.g. the closing spring) is not automatically loaded with each opening of the door leaf, the energy store (e.g. the closing spring) shall be loaded and unloaded over 50 000 cycles for an opening angle of 90°.* *The compliance shall be verified by a test according to 5.3.4.* *NOTE The proof of compliance can be combined with the durability test of the closing damping according to 4.3.3.* We suggest to improve the wording and to move the sentence to 4.3.3	*Modify as follows and move to 4.3.3* *If the stored energy is not automatically loaded with each opening of the door leaf, the stored energy store shall be loaded and unloaded at least for 50 000 cycles, for an opening angle of 90°.* *The compliance shall be verified according to 5.3.4.* *NOTE The proof of compliance can be combined with the durability test*	Rejected. Proposal is not seen as an improvement and as a general information the text is useful in 4.3.1.
IT27 042		04.03.1		ed	*After 500 000 test cycles, the closing time during passive mode shall not have increased by more than 100 % and shall not have decreased by more than 30 % compared to the closing time for an opening angle from 90° to 0° measured after 5000 test cycles.* The sentence refers to passive mode: we suggest to move in 4.3.2	Move the sentence to 4.3.2	Rejected, but sentence improved to: "After 500.000 test cycles in active mode, the closing time during passive mode…"
IT26 043		04.03.1		ed	*The power-operated pedestrian swing door drive with self-closing function shall open and close the test door according 5.1.1 at least 500 000 times to an opening angle of 90°.* *After 500 000 test cycles of the durability test, it*	Modify as follows *The power-operated pedestrian swing door drive with self-closing function shall open (from 0° to 90°) and close (from 90° to 0°) the test door according 5.1.1 at least 500 000 times.*	Rejected. Wording is clear as it is.

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					shall be possible to adjust the opening time for an opening angle from 0° to 90° to less than 7 s and the closing time from an opening angle of 90° to 0° to at least 20 s. According to 4.2.3 the opening angle shall be at least of 95°. In order to avoid misunderstanding, We suggest to improve the wording.	*After 500 000 test cycles, it shall be possible to adjust the opening time (from 0° to 90°) to less than 7s and the closing time (from 90° to 0°) to at least 20s.*	
IT25 044		04.03.1		ed	*Durability (during active mode)* Delete the brackets	Modify as follows Durability during active mode	Agree
DE 045		04.03.1		Ge	The adjustability of 20s is not necessary. The next sentence demands: After 500 000 test cycles, the closing time during passive mode shall not have increased by more than 100 % and shall not have decreased by more than 30 % compared to the closing time for an opening angle from 90° to 0° measured after 5000 test cycles. It is sufficient if a door operator fulfill this requirement. There is no need to adjust the closing time to 20s in practice.	Delete "~~and the closing time from an opening angle of 90° to 0° to at least 20 s~~.	Agree
DE 046		04.03.1	Note	ge	Should "can" (possibility) be "may" (permission) (de: "darf")? In this case the Note shall become normal text.	Please check.	as checked by secretary "may"
IT30 047		04.03.2			*…force* We suggest to use the word 'torque'	Modify force → torque	Agree
IT29 048		04.03.2		ed	*Durability of self-closing function during passive mode* We suggest to align the wording to 4.3.1	Modify as follows *Durability during passive mode*	Agree
IT31 049		04.03.3		ed	*In case the damped closing in passive or active mode is realized via a regenerative damping by using electronic/electrical components or a mechanical damping and if this damped closing is*	Modify as follow	Rejected See IT 28

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					not used during the durability test according to 4.3.1, Clause 1, the reliability of the damped closing shall be verified by 50 000 test cycles in passive mode. Within the scope of the 500 000 cycles durability test the 50 000 test cycles in passive mode shall be performed following the first 5 000 test cycles in active mode. After the 50 000 test cycles, the test is carried on for the remaining 445 000 test cycles in active mode. *The compliance shall be verified by a test according to 5.3.4.* The sub-clause doesn't contain requirement; there are cross-reference not clear (sub-clause refers to 5.3.4 which refers to 4.3.5… See also IT28	*If the stored energy store is not automatically loaded with each opening of the door leaf, the stored energy (e.g. the closing spring) shall be loaded and unloaded over 50 000 cycles for an opening angle of 90°.* *If the stored energy store is automatically loaded with each opening, in case the damped closing in passive or active mode is realized via a regenerative damping by using electronic/electrical components or a mechanical damping the reliability of the damped closing shall be verified by 50 000 test cycles in passive mode. Within the scope of the 500 000 cycles durability test the 50 000 test cycles in passive mode shall be performed following the first 5 000 test cycles in active mode. After the 50 000 test cycles, the test is carried on for the remaining 445 000 test cycles in active mode.* *The compliance shall be verified by a test according to 5.3.4.*	4.3.3 deals not with automatically loading.
DE 050		04.03.4		Ed	Reference to EN1155 does not make sense	Remove reference to EN1155	Agreed
IT32 051		04.03.4	1§	ed	*It shall be possible to manually release the holding of the open position. The release shall be activated by a release button or by moving the door leaf* We suggest to improve the wording.	Modify as follows It shall be possible to manually release the hold-open position. The release shall be activated by a release button or by moving the door leaf.	Agreed in principal. Modify: It shall be possible to manually release the door leaf from the hold-open position.
IT33 052		04.03.4	2§	ed	*In case of a release via the manual release button, the closing movement shall start within a time period of < 3 s.* We suggest to improve the wording.	Modify as follows In case of a release via the manual release button, the closing movement shall start within 3 s.	Agreed
IT34 053		04.03.5			*Durability - Function of the controlled closing process in passive mode* We suggest to align the wording to the text of the	Modify as follows Durability - closing time during passive mode	Agreed

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					sub-clause.		
IT35 054		04.03.6		ed	*Durability - Behaviour during blocking* The word 'blocking' is unclear	Modify as follows Durability - Behaviour during mechanical lock	Rejected. “Blocking” is a clear term
IT36 055		04.03.6	1§	ed	*In active mode, the power-operated pedestrian swing door drive with self-closing function shall be able to withstand without damage a blocking in the opening and closing direction* See IT35	Modify as follows In active mode, the power-operated pedestrian swing door drive with self-closing function shall be able to withstand without damage the mechanical lock in the opening and closing direction	See IT35
IT37 056		04.03.7		ed	The closing time from 90° to 0° set for an ambient temperature of 20 °C shall not decrease to less than 3 s and not exceed 25 s in case of an ambient temperature between 40 °C and –15 °C. We suggest to improve the wording.	Modify as follows In the range of temperature 40°C to -15°C, the closing time(from 90° to 0°) shall not decrease to less than 3s and not exceed 25s respect the value set for the ambient temperature of 20 °C.	Rejected. Seems to be no improvement.
IT40 057		05.01.1	2§	te	*If the design is different due to the installation position or power size of the power-operated pedestrian swing door drive with self-closing function, another test piece of this version shall be tested.* The sentence is not clear. If the design is different, the product is different so it's needed to have 3 sample of this 'different' product to be tested	Delete the sentence.	Agreed
IT39 058		05.01.1	2§	ed	*All installation positions shall be tested.* We suggest to modify the sentence, considering the need to test the most unfavourable position considered by the manufacturer.	Modify as follows The most unfavourable position considered by the manufacturer shall be tested.	Rejected. All installation positions have influences e.g. on the closing torque.
IT38 059		05.01.1	2§	ed	*At least 3 power-operated pedestrian swing door drives with self-closing function shall be tested according to 5.1.* *The reference to 5.1 in superfluous.*	Modify as follows *At least 3 power-operated pedestrian swing door drives with self-closing function shall be tested.*	Rejected. Reference to 5.1 is ok.
IT41		05.01.4		ed	The sub-clause gives no added value.	Delete the sub-clause or move it in an Annex.	Rejected.

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060							Table provides good overview.
IT1 061		05.02.1	1§	ed	*With the opening angle at 90°, the door leaf is to be held open via the hold-open device. Afterwards, a signal to trigger the hold-open device shall be sent. The time until the beginning of the closing movement is to be recorded. Once the door leaf has completely closed, an opening command for the power-driven opening of the door leaf is to be initiated. As a result, the door leaf shall not open.* We suggest to check and to improve the wording.	Modify as follows With the opening angle equals to 90°, the door leaf is to be held open via the hold-open device. Afterwards, a signal to trigger the hold-open device shall be sent. The time before the closing movement begins is to be recorded. Once the door leaf has completely closed, an opening command for the power-driven opening of the door leaf is to be initiated. As a result, the door leaf shall not open.	Rejected. Existing text is clear.
IT42 062		05.02.2	1§	ed	With the opening angle at 90°,… We suggest to check the wording.	Modify as follows With the opening angle equals to 90°,	Rejected Wording ok according to UK group members
DE 063		05.02.6		te		Add "Afterwards, a signal to trigger the hold-open device shall be sent and it shall be checked that the door closes."	Agreed
DE 064		05.03.2		Ge	For the comparability it is important to define a tolerance. The range from 0°/s to 1°/s is too high.	Add tolerance to 1°/s =>1°/s +/- 0,2°s	Agreed
IT43 065		05.03.2-5.3.3		ed	We suggest to revise the structure	Modify as follows 5.3.2 Durability of self closing during passive mode 5.3.2.1 Opening and closing torques 5.3.2.2 Efficiency	Agreed. References in document need to be aligned due to the revision.

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						And update the cross-reference in the standard	
DE 066		05.03.3	Equation	ge	Mathematical formulae shall according to ISO/IEC Directives Part 2:2018, 27.5, be expressed in mathematically correct form (not in words). The variables shall be represented by italicized single-letter symbols (of the greek or latin alphabete as appropriate). The meanings of the symbols shall be explained in connection with the mathematical formulae, unless they appear in a symbols and abbreviated terms clause. The “unit” “%” shall be deleted from the formula and only be given in the introducing sentence.	Please change.	Agreed.
DE 067		06	06.1			Replace first 2 indents by "Marking according to EN 16005"	Agreed
IT44 068		06.01	1§	te	We suggest to add an indent - Range of temperature	Add - Range of temperature	See DE 067
DE 069		06.01	New dash	te	Number of this standard should be also marked on the product	Add a dash: - EN 17372	Rejected Other relevant standards for the product are also not mentioned. See also DE67.
DE 070		1 Scope	First para	ge	Scope should underline that the standard deals with requirements and test methods *for the self-closing function* (and does not cover all other aspects of the product)	Add a sentence at the end of the first para: It defines requirements and test methods for the self-closing function.	Agreed
DE 071		1 Scope	Last two para	ge	The content of the last two paragraphs is not necessary	Exchange the two last paragraphs with the following text: Requirements and test methods for hold-open systems are not part of the standard.	Agreed

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						Additional requirements and test methods for the use of automatic swing operators on double-panel swing doors are described in DIN EN 1158 and are therefore not part of this standard.	
IIT45 072		Annex B	05.3.4	ed	Reference to 4.3.5 is missing the sub-clause 5.3.4	Introduce the reference	Rejected. The original English version contains the reference
DE 073		Bibliography	general	ge	EN 14600 missing.	Add EN 14600. (Necessary as long as the requirements for building hardware to be used on fire doorsets will be transposed to the relevant product, test, and classification standards.)	Rejected. 14600 is not mentioned in the standard.
UK 074	3	Normative references		ED	EN14637 Missing	Add EN14637	Rejected See DE 71; EN 14637 will be no longer mentioned in the standard.
UK 075	1	Scope	1st Para	TE	The scope applies to doors with fire resistance and smoke control characteristics	Should it be applicable to all self-closing drives	Agreed, see AFNOR 001
UK 076	2	Scope	Last Para	ED/TE	Contradicts the previous statement saying the document does not apply to systems according to EN14637.	Combine statements or clarify	Agreed, see DE 71
DE 077		Title	ge	ge	Title can be misunderstood	change title as follows: Drives for power operated swing doors with self-closing function	Rejected. Title is clear.

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