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Portavant 80 automatic

Manual (EN)

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Contents

1 Introduction

Please observe the separate installation manual to ensure the safe installation and commissioning of the Portavant 80 automatic drive system. Be sure to perform all steps required for installation and commissioning and observe all information, instructions and precautions provided before operating the drive system. Observe the operating instructions and all safety information and safety instructions provided in this document to ensure safe operation. Keep this manual in a safe place for future reference and ensure that it is available to all users.

2 Safety notices

This operating manual contains safety notes pointing out the unavoidable residual risks associated with the operation of the Portavant 80 automatic system. The following warnings are used:

DANGER!

(Type and source of the danger)

Ignoring warnings indicated by the signal word "Danger" may lead to death or most severe injury.

Caution!

(Type and source of the risk)

The signal word "Caution" indicates potential material damage. Ignoring warnings indicated by the signal word "Caution" may lead to damage to the product, other objects in its proximity or to the environment.

2.1 Intended purpose

The Portavant 80 automatic fitting system may only be used for the power-assisted and manual opening and closing of sliding doors in protected building interiors and under normal ambient conditions (see section 4 "Specifications"). Special influences like direct splash water, an atmosphere containing chlorine or elevated temperatures are not allowed. This excludes, in particular, the use of Portavant 80 automatic for shower doors or doors in saunas, steam baths or swimming pools.
The system may only be used with single-sash doors weighing between 20 and max. 80 kg (incl. handle, etc.) and with double-sash doors weighing between 20 and max. 60 kg each (incl. handle, etc.). Only tempered safety glass or laminated safety glass made of may be used. The assembly instructions contain further information and must be observed.

DANGER!

The Portavant 80 automatic system must not be installed in escape or emergency routes. It must not be used in smoke-control and fire doors.

Caution!

Outdoor use, or indoor use for shower doors or doors in saunas, steam baths or swimming pools, is expressly excluded.

2.2 Legal conditions

The motion area of an automatic door must always be secured by safety sensors (in compliance with DIN 18650 / EN 16005 and other standards).

Safety sensors may be omitted in many situations in case of automated doors operating at a low level of kinetic energy where door mass and speed are kept sufficiently low so that the collision between a person and the door edge and the subsequent reversing motion of the

door can be seen as uncritical (see DIN 18650 / EN 16005). The situation must be analysed by the installer in each individual case if doors are to be used by particularly vulnerable persons such as children or persons with disabilities. The conditions on site must be considered in the analysis (see section 2.4 "Safety analysis by the installer" and section 7 "Safety analysis by the installer according to DIN 18650 / EN 16005").
Related to EN 16005 an operation at a low level of kinetic energy means that the kinetic energy of the door is below 1.69 Joule.
Evaluation:
$E = m*v^2/2$ (E = kinetic Energy [J]; m = mass of the door [kg], v = velocity of the door [m/s])

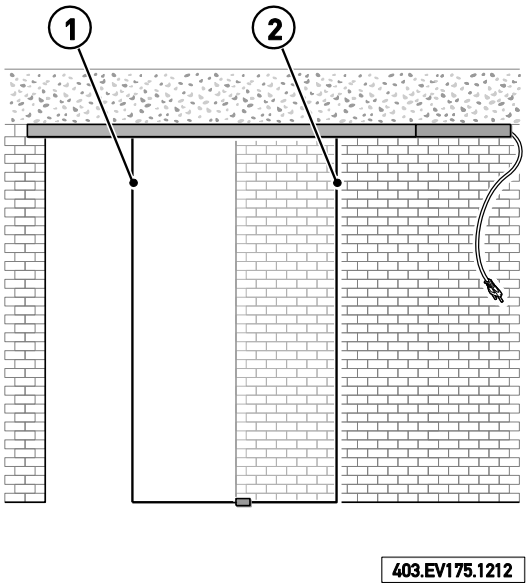
DANGER!

(Risk of crushing/shearing/impact)

To avoid potential danger, the installer must perform a safety analysis according to DIN 18650 / EN 16005 (see section 7).

2.3 Residual risks

Automatic doors may imply the risk of crushing, shearing, impact and drawing-in at the closing edges (primary and secondary closing edges).



(1) Primary closing edge
(2) Secondary closing edge

Depending on the installation conditions in the building and on the installation variant (installation method), residual risks cannot be fully excluded.

DANGER!

(Risk of crushing/shearing/impact)

- Never rush through a closing door, but start the opening motion and wait until the door has opened sufficiently wide.
- Never let children play with the Portavant 80 automatic system and always keep the remote control out of the reach of children.

The Portavant 80 automatic system can be operated as a manual sliding door temporarily or permanently if so required to ensure the safety of particularly vulnerable persons (see section 8 "Operating instructions"). The operating instructions also explain how to reduce the immanent residual risks by using the semi-automatic mode and or by reducing the door's motion speed (primarily the closing speed). See also section 3.3 "Operating modes and safety levels".

In general, the Portavant 80 automatic system features a very high safety level.

2.4 Safety analysis by installer

Before installing the Portavant 80 automatic system, the installer must perform a safety analysis of the entire doorset with due consideration of the conditions of the installation site and the anticipated user groups of the door. If it is assumed that the doorset may represent an unreasonable hazard to particularly vulnerable persons, then the operating mode of the door can be changed and set in such a way that the mode (e.g. semi-automatic or manual) cannot be manipulated without major intervention. See section 7 "Safety analysis by the installer according to DIN 18650 / EN 16005".

DANGER!

(Risk of crushing/shearing/impact)

- To avoid potential danger, the installer must perform a safety analysis according to DIN 18650 / EN 16005 (see section 7).
- It is not possible to fit the Portavant 80 automatic system with safety sensors as an option. If the result of the safety analysis shows that safety sensors are required, then the Portavant 80 automatic system may not be installed.

2.5 Limitation of liability / Exclusion of liability for the USA and Canada

The Portavant 80 automatic system may only be used for its intended purpose (see section 2.1 "Intended purpose"). The manufacturer excludes any liability for damage resulting from unauthorised changes to the Portavant 80 automatic system.

Operation of the Portavant 80 automatic system in the United States of America (USA) or Canada is not permissible.

2.6 General safety notices

DANGER!

(Risk of electric shock and of crushing/shearing/impact)
The use of control elements, settings or methods not described in this documentation may result in electric shock or other risks caused by electric voltage or current and/or damage by mechanical procedures. **Danger of life by electric shock!**
It is mandatory to observe all instructions in this manual to ensure your safety. Incorrect installation and/or incorrect commissioning may lead to severe injury.

The master menu (installer's menu) accessible after removing the cover secured by fastener may only be used by specialist technicians trained by the manufacturer.

General safety precautions for installation, maintenance and cleaning

DANGER!

(Risk of electric shock and of crushing/shearing/impact)

- Installation, maintenance and cleaning work may only be performed by specialist technicians trained by the manufacturer.
- Ensure that the Portavant 80 automatic system is completely isolated from mains power before commencing any installation, maintenance or cleaning work. Pull the mains connector from the power socket or, in case of a hard-wired system, disconnect the fuse switch or circuit breaker. After removing the aluminium cover profile, pull the mains connector at the housing of the drive unit to prevent unintended reconnection to mains power by third parties (danger to life by electric shock).
- Take measures to prevent unauthorised persons from accessing the work area to avoid injury by falling tools or components.
- Fastening material such as bolts, screws and plugs must be selected by the installer according to the building structure material and the load. The installer is responsible for the secure and permanent attachment of the components of the Portavant 80 automatic system to the building structure.
- Do not expose the Portavant 80 automatic system to water or any other liquid (danger to life by electric shock).
- Never introduce any objects into the openings of the drive unit's housing (danger to life by electric shock).
- The mains connection housing may be opened by specialist technicians (qualified electricians) only (danger to life by electric shock).
- Work on parts carrying live voltage may be performed by qualified electricians only (danger to life by electric shock).
- Route the mains power cable in such a way that no one can trip over it and tear it off (danger to life by electric shock).
- Never use the Portavant 80 automatic system if the mains power cable is damaged. Replace the cable immediately if damaged (danger to life by electric shock).

- Always pull on the connector housing when pulling the mains power cable from its socket, never on the cable itself (danger to life by electric shock).
- Do not attach any pictures, power sockets, switches or other objects to the wall within the travel path of the door. Keep the travel path clear of objects such as vases or umbrella stands. Remove skirting or door frame, if required. Observe the regulations concerning safety clearances (see installation instructions and section 7 "Safety analysis by the installer according to DIN 18650 / EN 16005").
- Never place ladders or other objects within the travel path if motorised motion is imminent.
- Check the settings and functionality of the Portavant 80 automatic system after installation.
- The installation described in this manual is an example. The situation on site, the building structure or available aids or other conditions may require alternative suitable procedures.

Caution!
The drive and control unit must not be disposed of as household refuse.

Developed in accordance with the latest safety standards:
Low kinetic energy operation in accordance with DIN 18650 / EN 16005
- Initial inspection by TÜV
- CE marking of drive unit by manufacturer
- Designation of classification in accordance with DIN 18650 by manufacturer
TÜV certificate and CE declaration are included in this manual (see section 12 "Declaration of incorporation, Declaration of conformity and Initial inspection by TÜV").

This manual must be kept for future reference.

3 Function description

3.1 General information

The Portavant 80 automatic system is an electro-mechanical drive system for single-sash or double-sash interior doors. In single-sash operation, the permissible door weight including add-on parts such as handles ranges from 20 to max. 80 kg. In double-sash operation, the permissible door weight including add-on parts such as handles ranges from 20 to max. 60 kg per sash. The door sash is connected by roller assemblies.
The maximum permissible opening and closing speed is different for single-sash and double-sash variants and depends on the door weight set by the installer via the control panel. The only adjustment that can be made by the user is to reduce the actual motion speeds. The user-adjustable speeds comply with the requirements for low kinetic energy operation according to DIN 18650 / EN 16005.

3.2 Teach-in cycle / power failure

When commissioning the device, the installer must make the system perform a teach-in cycle in order to calibrate the end positions of the door.

If a power failure occurs after commissioning, the door must be push-started manually into either direction. The user must ensure that the travel path of the doors is free of obstructions. Push-starting the door will start the automatic teach-in cycle during which the door slowly moves into its end positions. Settings made via the control unit are not lost in case of power failure.

3.3 Operating modes and safety levels

Manual mode:
This mode allows the door to be moved manually like a sliding door without power-assistance. In this mode the motor drive is disabled. All signal senders (push buttons, motion detectors, etc.) are disabled. The belt drive remains connected to the door, causing it to be moved when the door is operated manually. This has no adverse effects on the drive unit or the control system. Manual mode may be used over extended periods.
It represents the highest safety level as the motorised drive is disabled.

Semi-automatic mode:
In semi-automatic mode the door opens and closes automatically when being triggered by a signal. However, any motion detectors connected are disabled. Door motion must be actively triggered by push-starting the door at the door handle [Push&Go] or by using the push button or remote control. The door only moves if willingly commanded to do so by the user. Accordingly, the user then always has the opportunity to check whether the travel path of the door is free, and can observe the door as it moves.
This mode represents the second-highest safety level as all door motions are deliberately triggered and can be observed.

Automatic mode:
In automatic mode, the installed motion detectors can be enabled or disabled by the user e.g. to temporarily prevent pets from entering or leaving rooms. The door opens when receiving an impulse from the motion detector or by someone pushing the door handle [Push&Go] or pressing the push button or remote control. It then closes after an adjustable open period without any further impulse from the user. This mode represents the third-highest safety level as door motion is triggered by motion detectors or a timer without a deliberate decision by the user.

All motor-assisted operating modes comply with the definition of low kinetic energy according to DIN 18650 / EN 16005.

DANGER!

(Risk of crushing/shearing/impact)

The use of radio motion detectors that could theoretically be connected to the radio receiver (intended for radio push button and remote control) **is <u>not</u> permissible**. The use of radio motion detectors has been deliberately omitted by the manufacturer in order to prevent any adverse effects on the safety concept described above. Any mention of motion detectors in this document always refers to the hard-wired connection of one or more motion detectors to the dedicated terminals provided at the drive unit.

3.4 Collision with obstacles

If a door collides with an obstacle in its travel path, it stops immediately to return to its opposite end position. Depending on the operating mode, it remains in this end position until the next impulse is received or it commences another closing motion once the open period has elapsed. If another collision occurs at the same position, then the door is disabled (possibly only when it has arrived at its end position). It must then be push-started manually. This disabling feature prevents the door from repeatedly colliding with the same obstacle. Should the reversing door, after the initial collision, run into a second obstacle, then the door will stop and be disabled immediately at this position.

The low kinetic energy mode of the door ensures that static forces do not exceed 67 N.

4 Technical data

Mains connection

Voltage supply:	100-240 V AC; 50 – 60 Hz
Mains supply stability:	+/- 10%
Circuit protection on site:	16 A
Cable type:	min. 2 x 0.75 mm², protection class 2

Power consumption without external consumers

In stand-by mode:	max. 1 W
In drive mode:	max. 60 W

Ambient conditions

Permissible ambient temperature:	0 – 40 °C
Permissible relative humidity:	< 70 %

Use in dry interior locations only. No splash water. Protection class IP 20.

Permissible door dimensions

Door weights for single-sash operation:	20 to 80 kg (200 – 800 N)
Door weights for double-sash operation:	20 to 60 kg (200 – 600 N) per sash

Caution! Consider add-on parts such as door handles when determining door weight.

Maximum height-to-width ratio:	2.5 : 1

Intended pass-through rate

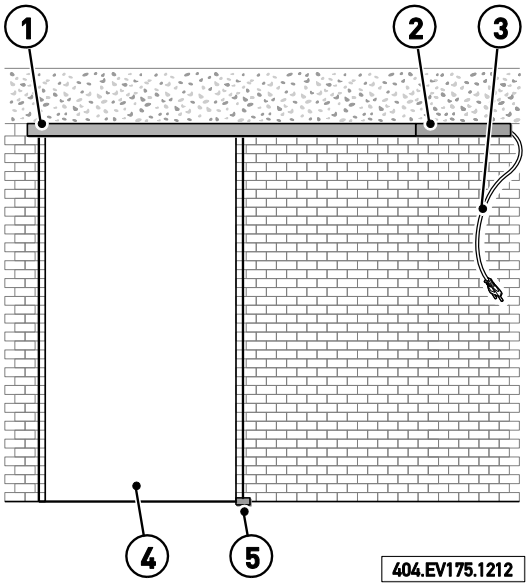
Average motion cycles per day:	approx. 150 – 200 (planning basis for several years of operation)
Max. motion cycles per hour:	approx. 200 (extend open period, if required)

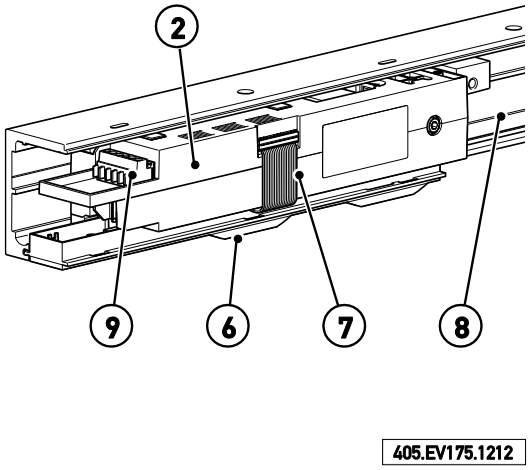
Operating sound

Operating sound of drive:	max. 55 dB (A)

(Resonances within the building structure must be checked on site and be eliminated)

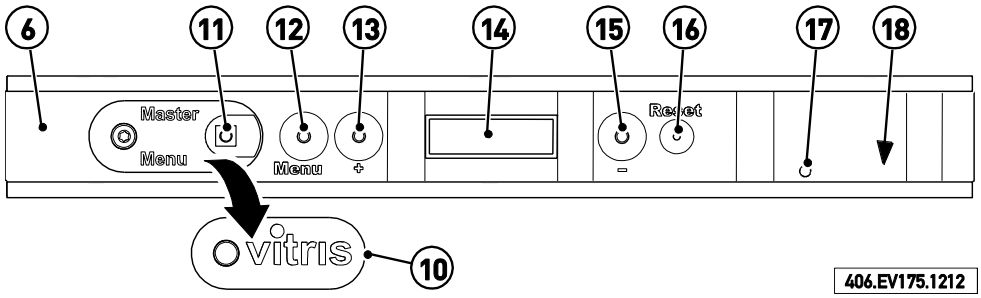
5 System overview





(1) Track profile and cover profile
(2) Drive and control unit
(3) Supply cable
(4) Door sash
(5) Floor guide

(2) Drive and control unit
(6) Control panel
(7) Control panel connecting cable
(8) Drive belt
(9) Terminals for external signal senders



(6) Control panel
(10) Cover for Master Menu button
(11) Master Menu button
(12) Menu button (user menu)
(13) "+" button
(14) Two-line display
(15) "-" button
(16) Reset button
(17) LED of radio receiver, if applicable
(18) Position of optional radio receiver

6 Installation and commissioning by the installer

In accordance with DIN 18650 / EN 16005, the Portavant 80 automatic system may only be installed and commissioned by technicians (installer) trained by the drive unit manufacturer.

A separate installation and commissioning manual is included in the product packaging. The installation and commissioning manual is available from the drive unit manufacturer, if required (see imprint). Please specify the production date of the drive unit (see CE sticker on drive unit).

The installer must perform a safety analysis in accordance with section 7 before installing the Portavant 80 automatic system.

The installer is considered the manufacturer of the complete doorset and is obliged to provide a declaration of conformity in accordance with section 7 and to attach a CE mark to the doorset in accordance with section 8.

After installation, the installer must commission the system, including a function test, in accordance with the installation manual and must also approve the system in accordance with section 9. The approval must be documented in the inspection record in section 9.

7 Safety analysis by the installer according to DIN 18650 / EN 16005

7.1 Performing the safety analysis

The safety analysis
- must consider the necessary security measures during the planning phase;
- must be performed prior to commissioning at the latest;
- states how potential dangers can be eliminated or reduced at the doorset in view of the actual installation conditions and the user groups;
- indicates potential residual risks.

The installer of the doorset
- is obliged to perform and document a safety analysis (danger analysis / risk analysis) in accordance with DIN 18650 / EN 16005 or Directive on Machinery 2006/42/EC;
- must create a EC declaration of conformity and attach a CE mark at the doorset.

In general, avoiding points of danger always takes priority.

Door data:

Building: _____

Street: _____

Post code / City: _____

Location inside building, door number, designation: _____

Sash width: _____ mm

Sash height: _____ mm

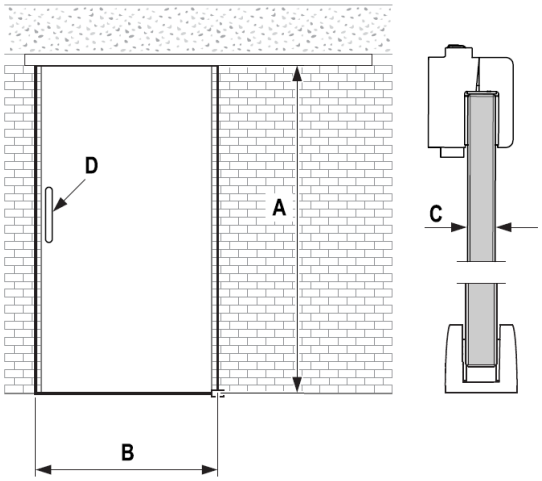
No. of sashes: _____

Calculation of door weight:

Door weight = sash height A [dm] x sash width B [dm] x glass thickness C [dm] x 2.5 kg/dm³ + weight of add-on parts D [kg]

Round the result to the next 5 kg and adopt this value in the control system.

Door weight: _____ kg



Safety analysis author:

Name: _____

Street: _____

Post code/City: _____

Date: _____

Signature: _____

Doorset operator:

Name: _____

Street: _____

Post code/City: _____

Date: _____

Signature: _____

Manufacturer of (complete) doorset (installation contractor):

Name: _____

Street: _____

Post code/City: _____

Date: _____

Signature: _____

DANGER!

(Risk of crushing/shearing/impact)

Please check each of the following items, ticking the applicable square brackets [ ] in cases of compliance. Round brackets ( ) are provided where an alternative selection is possible. If compliance is not given, please take measures to establish compliance, otherwise do not commission the Portavant 80 automatic system.

[ ] General check of system periphery

Door sashes may not open into areas that are used for other passing traffic.

[ ] Check of safety clearances

Automatic doorsets must be realised in such a way that any risk of crushing, shearing, impact and drawing-in by the opening or closing sash is avoided, else suitable safety measures must be in place, e.g. by maintaining safety clearances or by providing protection wings (and by limiting door operating forces by low kinetic energy mode).

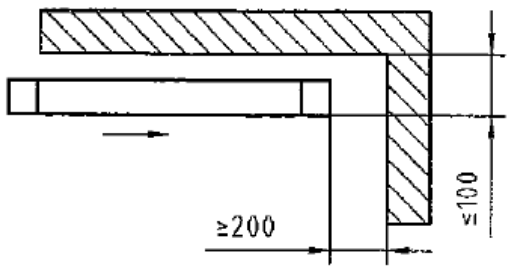
Safety clearances must be dimensioned as follows to provide a sufficient level of protection against crushing:
- for fingers or hands >= 25 mm
- for the head >= 200 mm
- for the body >= 500 mm

Safety clearances must be dimensioned as follows to provide a sufficient level of protection against drawing-in:
- for fingers or hands <= 8 mm
- for fingers or hands <= 30 mm

Always consider any add-on parts such as (finger-pull) handles!

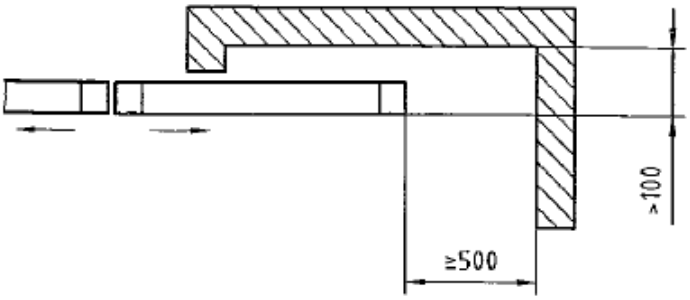
Compare the conditions on site with the specifications shown in the following illustrations (all dimensions in mm). Not all illustrations necessarily comply with the actual conditions on site.

(a) Danger for the head (crushing)



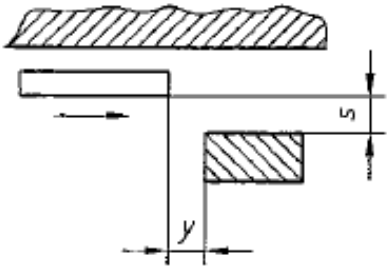
s ≤ 100, then y ≥ 200

(b) Danger for the body (crushing)



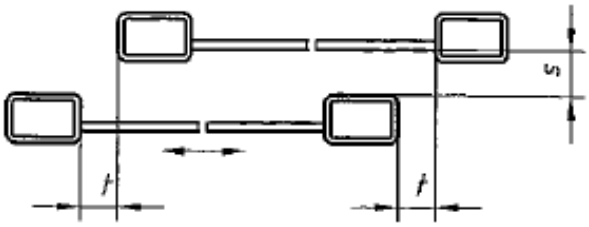
s > 100, then y ≥ 500

(c) Danger for the body (crushing)



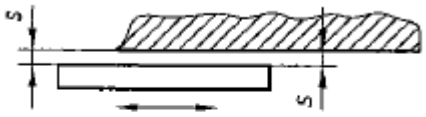
s ≥ 500, then y ≤ 0

(d) Finger protection (shearing)



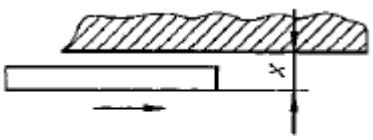
s ≤ 8, then t ≤ 0
s > 8, then t ≥ 25

(e) Finger protection (drawing-in)



Fingers: s ≤ 8 or 25 < s ≤ 30

(f) Clearance between sash front edge to fixed sidelight



x ≤ 100

Check of (finger-pull) handles or other add-on parts

[ ] no sharp edges AND
[ ] not shearing points/sufficient safety clearances

Check of glass panel

[ ] no sharp edges/no edge pitting AND
[ ] safety glass AND
[ ] transparent sashes are marked (stickers/frosted strips) at eye level in such a way that the closed door is recognised by the user, AND
[ ] a label stating "Automatic" mode is attached

[ ] Check of door weight entered in menu

Verify that the correct door weight including add-on parts such as handles has been entered in the master menu.

→ Safety is ensured by low kinetic energy operation

Note: The display of "2x60kg" indicates that a double-sash doorset with a door weight of 60 kg each is in operation. Accordingly, "1x60kg" indicates a single-sash doorset with a weight of 60 kg.

DANGER!

(Risk of crushing/shearing/impact)

Never enter a door weight that is too low, and make sure that in case of a double-sash door "2x" precedes the door weight. This is a prerequisite to ensure that the maximum door speeds calculated from the door weight comply with the low kinetic energy mode according to DIN 18650 / EN 16005. **Incorrect entries may cause severe injury.**

[ ] Check of push buttons (only if applicable)

Wall-mounted push buttons and their location must comply with user requirements. They must be located in such a way that the user is not impeded by the opening door and cannot collide with it. Also, the location of the button must ensure that the user has a clear view of the door, enabling the user to check before opening the door that the moving door does not represent a hazard to other persons. Wall-mounted push buttons must be designed and located in such a way that the risk of accidental actuation is as small as possible. They must be located within the reach of the users and must be clearly identifiable.

[ ] Check of motion detectors (only if applicable)

The activation threshold of any motion detector triggering the door should extend approx. 1,000 mm to 1,500 mm forward of the door face. The detection range must at least cover the door's overall opening width.

[ ] Particularly vulnerable persons (e.g. infants, physically challenged persons, etc.)

( ) It is not assumed that particularly vulnerable persons will be using the door OR
( ) the operator of the doorset ensures that the user groups of the doorset do not include particularly vulnerable persons.

OR

If it must be assumed that the door will be used by particularly vulnerable persons, then the safety level of the doorset must be increased by:

- ( ) reducing the opening speed (as long as the opening speed still allows comfortable passage of the door) AND/OR
- ( ) reducing the closing speed AND/OR
- ( ) selecting semi-automatic mode AND/OR
- ( ) disabling the user menu (to prevent users from tampering the safety concept) OR
- ( ) by the doorset operator ensuring that the doorset is operated in semi-automatic mode or manually if particularly vulnerable persons are present.

DANGER!

(Risk of crushing/shearing/impact)

If the suggested measures for the protection of particularly vulnerable persons are considered as insufficient, then the Portavant 80 automatic system must not be commissioned.

7.2 Declaration of conformity by installer

The manufacturer of the door drive (Willach) has attached a CE mark at the drive system (incomplete machine) and has provided proof of type-approval and classification according to DIN 18650 to the greatest possible extent.

Declaration of conformity by the installer (manufacturer/installation contractor):

The installer incorporates the door drive with the fittings, the sash (not included in scope of supply of door drive manufacturer) and the peripheral building structure. According to the Directive on Machinery 2006/42/EC, only this procedure turns the incomplete machine into a complete machine. The installer or the contractor performing the installation thereby becomes manufacturer or assembler of the complete machine, i.e. the complete doorset. The doorset must be tested for its conformity with the Directive on Machinery (Safety analysis, see section 7.1 as well as Directive on Machinery 2006/42/EC and DIN 18650/EN 16005). Proof of conformity must be documented by providing a CE declaration. To this end, the drive system manufacturer (Willach) requests the doorset installer to utilise the CE mark provided on the drive and to complete the classification in accordance with DIN 18650 so that it applies to the complete doorset.

The first six digits and the eighth digit of the classification have already been printed onto the label on the drive unit by the manufacturer (Willach).

Classification DIN 18650 **I 2 I 1 I 2 I 0 I 1 3 I 0 I** __ __ __ **I 4 I**

1st digit:	Drive type	**2**	Sliding door drive
2nd digit:	Durability of the drive	**1**	200,000 testing cycles
3rd digit:	Door type	**2**	Sliding door
4th digit:	Fire-protection door suitability	**0**	Not suitable as fire-protection door
5th digit:	Safety devices at drive	**1**	Force limitation
		3	Low (kinetic) energy
6th digit:	Special requirements for drive	**0**	No special requirements
7th digit:	Safety measures at automatic doorset	**?**	**To be determined by installer**
8th digit:	Ambient temperature	**4**	Temperature range according to drive manufacturer's specifications

The 7th digit must be entered by the installer as follows:

0 – No additional safety devices
1 – With sufficiently dimensioned safety clearances
2 – With protection against crushing, shearing and drawing-in of fingers

A "0" indicates that no safety devices are installed. Such safety devices may be permanently installed protective wings for instance. (Note: It is not possible to fit the Portavant 80 automatic system with sensor edges.)

Digit "1" indicates that all safety clearances are sufficiently dimensioned. See fig. a) to f) in section 7.1 (in general, the ">" symbol).

Digit "2" indicates that measures have been implemented against crushing, shearing and drawing-in of fingers. These measures may be implemented e.g. by observing the clearances according to fig. a) to f) in section 7.1. Suitable covers of excessively large gaps (e.g. for in-wall systems) may also be suitable measures.

The standard permits the entry of several classes (in general all three if applicable) at the position of the 7th digit, i.e. the installer may enter any applicable digit into the classification label on the drive unit and into the classification copy in this manual (note: use permanent marker pen).

EC Declaration of Conformity

The manufacturer of the doorset herewith declares conformity with the Directive on Machinery

Company: _____

Name: _____

Street: _____

Post code/City: _____

We hereby declare that the complete sliding doorset, driven by the automatic drive system for sliding doors of type "Portavant 80 automatic", manufactured by Gebr. Willach GmbH, Stein 2, 53809 Ruppichteroth, Germany,

serial number / year of manufacture: _____ (copy from type label)

complies with the requirements of the EC Directive on Machinery (2006/42/EC).

We declare that the specific technical documents for this complete machine have been created in accordance with Annex II, Part A.

A safety analysis (see section 7.1) was performed and documented with due consideration of the conditions on site. Assembly and commissioning were performed in accordance with the assembly instructions and the manual of the drive system manufacturer.

_____ _____

Place, Date

Name and signature
Installer/Installation contractor

8 Operating instructions

Be sure to have read and understood section 3 "Function description".

8.1 Settings via the user menu

Changing between operating modes:
Press "Menu" to open the user menu. In the first menu item, press "+" or "-" to change the operating mode. For more information about the operating modes see section 3 (Function description). The selection displayed is saved as soon as you press "Menu" to open the next menu item or if you leave the display to switch off automatically after one minute.

Enabling/disabling motion detectors:
Press "Menu" again to open the menu item allowing the disabling or enabling of connected motion detectors. Press "+" or "-" to change the selection.
Note: Disabling the motion detectors may be useful to keep pets out of rooms during periods of absence. Note that motion detectors can be enabled in automatic mode only. In semi-automatic mode, the control system disables the motion detectors.

Setting the sensitivity of the Push&Go function:
Press "Menu" again to adjust the sensitivity of the Push&Go function. Press "+" or "-" to set the travel that the door must cover during push-starting until the drive cuts in to complete the motion to a value between 4 and 20 mm.
Note: If you have pets trying to open the door by paw movement, increase the push travel. Under normal conditions, the default setting (8 mm) should be retained.

Setting the opening speed:
Press "Menu" again to set the opening speed. Press "+" or "-" to select a percent value from the list. 100% corresponds to the maximum permissible opening speed in low kinetic energy mode according to DIN 18650/EN 16005. The opening speed can be reduced by the user as a percentage only.
Note: A lower opening speed reduces the impact energy should the secondary closing edge collide with an obstacle. Verify that the door opens quickly enough so that users can pass the door without having to slow down or wait.

Setting the closing speed:
Press "Menu" again to set the closing speed. Press "+" or "-" to select a percent value from the list. 100% correspond to the maximum permissible closing speed in low kinetic energy mode according to DIN 18650/EN 16005. The default setting is only 50%. The closing speed can be increased above that value to a maximum of 100%.
Note: During closing, there are usually no pedestrians waiting for the motion to complete. Accordingly, a lower speed is usually not annoying. However, in most cases the primary closing edge may collide with pedestrians passing through as the door is closing. It is therefore recommended not to set the closing speed to more than 50%, even though 100% are permissible in low kinetic energy mode.

Setting the Time OPEN:
Press "Menu" again to set the period that the door remains in open position in automatic mode. Press "+" or "-" to set the period in seconds.

Switching Party mode (function) on and off:
The Party mode function can be switched on and off by pressing “Menu” again. Use “+” and “-“ to toggle between both settings (activated/deactivated). Please note that the “activated” setting enables Party mode as such but does not directly put the door in Party mode. To put

the door in Party mode please follow the instructions as set out in Chapter 8.2 (Operating the door/Party mode).
If the activation of Party mode is experienced as a nuisance (e.g. with different users who are not familiar with the function), Party mode as such can be deactivated as described above.

Displaying performed motion cycles:
Press "Menu" again to display the number of motion cycles the system has performed. Observe the information provided in section 9 "Maintenance". Please state the number of motion cycles when submitting complaints or contacting service personnel.

Product version:
Press "Menu" again to display the version number of the product. Observe the information provided in section 10 "Troubleshooting". Please state the product version when submitting complaints or contacting service personnel.

Verifying the settings:
Press "Menu" repeatedly to verify all settings and change them by using the "+" or "-" key, if required.

Note: This display switches off automatically after one minute.

Reset:
Use a suitable pin to press in the "Reset" button. Pressing the "Reset" button will reboot the software. The display will show a request to perform a teach-in cycle ("Teach-in mode – Push to continue"). Push the door into either direction. Ensure that the travel path of the door is free of any obstacles as the subsequent teach-in cycle will determine the end positions. Use the "Reset" button to repeat the teach-in cycle if it is interfered or interrupted. The "Reset" button can also be used if the software does no longer respond and if the drive system does not move the door after push-starting.
Note: Pressing the "Reset" button does not delete the settings made in the menu, i.e. the default settings are not restored.

8.2 Operating the door

Push&Go function (standard function):
The Push&Go function allows you to push-start the door into either direction. The direction into which the door is pushed over the push travel set in the user menu is detected by the control system which then automatically activates the door drive. Let the door go as the drive cuts in.

DANGER!
(Risk of crushing/shearing/impact)

Keeping hold of the door as the drive system cuts in may cause the door to stop and reverse its motion (collision detection).
If the door is pushed too quickly and then released, the drive system will attempt to resume the set motion speed. In case of power failure or in manual mode, the drive system is not able to control the door speed, and the door must be moved by hand over its entire travel, slowing it down as it approaches

the end positions.
Always exercise care when pushing the door (also in Push&Go mode)!

Radio remote control (optional function):
The radio remote control allows opening and closing the door in semi-automatic mode. In automatic mode, the door can only be opened by remote control. The door will close when the Time OPEN has elapsed.
In both modes, the door will not respond to the remote control while in opening motion. While in closing motion, a repeated touch of the remote control button will cause the door to reverse (open).
One remote control can operate up to four doors. Also, several remote controls can be used to operate the same door.

DANGER!
(Risk of crushing/shearing/impact)

Press the remote control button only when having a clear view of the travel path of the door and after having verified that the moving door will not represent a safety hazard (especially to particularly vulnerable persons). Always keep the remote control out of reach of children.

Radio or wired wall button (optional function):
The wall-mounted radio or wired push button has the same function and is operated in the same way as the radio remote control.

DANGER!
(Risk of crushing/shearing/impact)

Locate the push buttons in such a way that the travel path of the door is clearly visible and that the moving door does not represent a safety hazard (especially to particularly vulnerable persons) pressing the push button. Press the push button only when having a clear view of the travel path of the door and after having verified that the moving door will not represent a safety hazard (especially to particularly vulnerable persons).

Party mode (automatic mode only):
The door's automatic closing after the open period can be temporarily disabled in automatic mode using the Party mode. This is an easy way of preventing frequent closing during periods of increased pedestrian traffic, e.g. during a party, without using the user menu.

Party mode via standard function:
Open the door using the Push&Go function. Wait for the open period to elapse. Block the closing motion of the door within the first 4 cm of its travel by manually pushing

against it. The door returns to its open end position where it is deactivated. To end the Party mode, push-start the door into closing direction.

Party mode via optional accessories:
With the door closed, double-tap the push button (option) within a period of max. 0.3 seconds. The double-tap can also be performed using the (optional) remote control (note that the door must be closed). Upon reception of the double-tap signal, the door opens and remains in open position until it is push-started in closing direction or until another signal is received from the push button or remote control.

Note: Party mode is only available if Party mode has been activated in the user menu. See Chapter 8.1 (Settings via the user menu/Party mode).

Power failure:
In case of power failure, the door can be operated like a manual sliding door.

DANGER!
(Risk of crushing/shearing/impact)

In case of power failure, the drive system is not able to control the door speed, and the door must be moved by hand over its entire travel, slowing it down as it approaches its end positions.

When mains power is re-established, the display will show "Teach-in mode – Push to continue". Ensure that the travel path is free of obstructions and push-start the door into either direction. Push-starting the door will start the automatic teach-in cycle during which the door slowly moves into its end positions. Do not interrupt the teach-in cycle and do not touch the door during the cycle as this may affect the determination of the correct end positions (see section 8.1 "Reset").
Settings made via the control panel are not lost in the event of a power failure.

9 Approval, inspection and maintenance according to DIN 18650 / EN 16005

The following requirements apply to the operation of the door according to DIN 18650 / EN 16005:

- Inspection and approval in accordance with the checklist below before commissioning by a person trained by the manufacturer
- Regular inspection of the automatic doorset at least once a year by a qualified person
- Maintenance after at least 200,000 motion cycles by a qualified person in accordance with the manufacturer's instructions (the number of motion cycles can be displayed via the user menu, see operating instructions)

Checklist "Commissioning":

- Check technically correct installation according to the manufacturer's instructions
- Check sash for smooth operation, adjust, if required
- Check doorset for correct function (check of opening, closing and reversing motion after collision with obstacles)
- Check function of installed impulse senders such as radio push button, radio remote control or hard-wired motion detectors
- Installation of effective protective measures against safety hazards or provision of protection at points between door components and parts of the building structure that may represent a hazard, e.g. by providing sufficient safety clearances
- Correct input of the door weight (see section 7.1 for evaluation of the door weight)
- Execution and documentation of the safety analysis in accordance with section 7.1
- Creation of a declaration of conformity in accordance with section 7.2
- Attachment of inspection label (including the mark of the next inspection)
- Documentation of correct commissioning in the inspection record (in this section)
- Handing over of manual (and installation instructions) to the operator

Checklist "Annual inspection":

- Check sash for smooth operation, adjust, if required
- Check doorset for correct function (check of opening, closing and reversing motion after collision with obstacles)
- Check function of installed impulse senders such as radio push button, radio remote control or hard-wired motion detectors
- Check function of protective measures against safety hazards or measures providing protection at points between door components and parts of the building structure that may represent a hazard, e.g. by providing sufficient safety clearances
- Check electric lines for damage
- Check for motor noise
- Check fasteners of facing and covers
- Check toothed belt for tension and wear
- Check all moving parts for correct function, wear and secure fit
- Attachment of a new inspection label (including the mark of the next inspection)
- Document all checks and maintenance work in the inspection record (in this section)

Care:

Only use commercially available cleaning agents to clean the drive. Keep the drive dry and do not wipe with a wet cloth. Do not use abrasive cleaning agents.

Inspection record:

Door data:

Building:

Address:

Installation location:

Location inside building, door number, designation:

Serial number of drive:

Date	Inspection	Result	Measure	Name	Signature
	Commission-ing				
	Acc. to checklist “Com-missioning”	Input door weight: _____ kg □ Low kinetic energy movement ensured (section 2.2) □ Safety analysis performed (section 7.1)		Further comments:	
		Commissioning correct			
	Annual inspection				
	Acc. to checklist				
	Acc. to checklist				

	Acc. to checklist				
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10 Troubleshooting

Problem	Potential cause	Remedial action
Door does not respond, and display does not light up when pressing "Menu"	No mains power	Check mains power; check circuit breaker, switch it back on, if required
	Mains power cable disconnected	Check connection of mains power cable and ensure secure fit
	Mains power cable defective	Replace mains power cable
Door does not respond, display is on or lights up when pushing "Menu"; display shows "Teach-in mode – Push to continue"	Door must reperform teach-in cycle after power failure	Push-start the door into either direction and wait for teach-in cycle to complete
Door does not respond, display is on or lights up when pushing "Menu"; display shows "Please wait"	Excessive door use or excessive ambient temperatures	Please wait and/or reduce ambient temperature
Door does not respond, display is on or lights up when pushing "Menu"; display shows "Push to continue" or “Party mode”	Door has been disabled, e.g. by double collision with an obstacle or Party mode	Push-start the door into either direction
Door does not respond to Push&Go signal; display lights up when pressing "Menu" but does not show any message	Door is in manual mode	Check operating mode in user menu and change it, if required (see operating instructions)
	Drive is defective	Replace drive
Door does not respond to radio push button or radio remote control (batteries in sender are not discharged)	No radio receiver installed	Install radio receiver
	Radio receiver and sender are not connected or paired	Pair radio receiver and sender (see installation instructions of this system as well as those of sender and receiver)
Door does not respond to motion detector	No voltage supply (24V) to motion detectors or no data connection to control system	Check connections (voltage supply and data line) of motion detectors at the terminals of the drive unit; check lines for damage
	In automatic mode: motion detectors are disabled in the user menu	Enable the motion detectors in the user menu (see operating instructions)
	In semi-automatic mode: in this mode, the motion detectors are disabled by the control system (safety concept)	Switch door to automatic mode, if required (see operating instructions)
Door responds to motion detectors with delay	Detection area of motion detectors is not optimally adjusted	Optimise orientation of motion detectors within the path of pedestrian traffic (see motion detector instructions)

Display lights up when pressing "Menu" button, all settings are displayed, but "+" and "-" buttons do not work	User menu has been disabled by installer, e.g. in hotels, to prevent tampering by guests or to increase safety (reduced motion speed, exclusion of automatic mode)	To enable the user menu, contact the installation contractor; it may be necessary to coordinate a new safety concept with the operator (see safety analysis)
Door responds, display does not work – even when pressing a button	Data cable (ribbon cable) between drive unit and control panel is interrupted	Check connectors on both data cable ends for secure fit; check cable for damage (note: the connectors may be plugged in in either orientation)
	Display/control panel is defective	Replace display/control panel
	Control system/output of drive unit is defective	Replace drive unit
Door has stopped out of end position, display shows "Push to continue". If the display is off, press "Menu" and check for display message	Collision with obstacle in both directions or double contact during opening – door has been disabled	Remove obstacles, if required, then push-start door in either direction
Door keeps stopping at the same position out of its end position, display does not show any message	Teach-in cycle was interfered – door assumes an incorrect end position	Repeat teach-in cycle (using the Reset button, see operating instructions)
Door stops at different positions without having collided with an obstacle and then reverses	Door assumes to have detected a collision	Check track profile for obstacles; check door for smooth operation
Door moves beyond its end positions or end positions move out of their set positions	Caution! End stops are loose	Adjust end stops according to the instructions and tighten them
Audible vibrations during door motion	Track profile is tensioned	Check underlying structure and rectify
	Belt tension is insufficient	Increase belt tension
Loud but regular noise during door motion	Unsuitable underlying structure (e.g. resonance in hollow wall)	Change the underlying structure (e.g. by bracing, wooden reinforcement, cavity filling, sound-absorbing film or foam)
	Track rollers are damaged	Check track rollers for damage and replace roller assembly, if required
Loud but erratic noise during door motion	Objects in track profile	Remove objects, including chips from drilling and dust, etc., clean and check track rollers
	Track profile is damaged	Check track profile for damage

11 Contacting the manufacturer

Doorset operators are recommended to assign inspection and maintenance of doorsets to local, trained installation contractors. Contact details of such contractors can be requested from the manufacturer. Upon request, inspection and maintenance services can also be provided by the manufacturer against charge.

For more information about products or documentation and for contact details of installation contractors for commissioning, inspection and maintenance, please contact the sales department at:

+49 (0) 2295 9208-422 or -427
vitris@willach.com

Monday through Friday 7:30 a.m. to 4:30 p.m.

In case of malfunctions or defects please contact the service support-line at:

+49 (0) 2295 9208-500

Monday through Friday 8 a.m. to 8 p.m.
Languages spoken: English, German

Please feel free to send us an e-mail requesting a call in your local language:
service@willach.com
Languages spoken: German, English, French, Italian, Dutch, Spanish, others upon request

***Note for operators and users:* Please always contact your installation contractor first to request technical assistance. Our support-line is intended to provide technical support to installation contractors. Please note that any work on the doorset in order to resolve malfunctions may be performed by trained specialist personnel only.**

12 Declaration of Incorporation / Conformity and type examination by TÜV

12.1 EC Declaration of Incorporation

Willach

EC Declaration of Incorporation

Gebr. Willach GmbH
Stein 2
53809 Ruppichteroth
Germany

We herewith declare that the

Automatic drive system for sliding doors

with type designation **Portavant 80 automatic**
serial number: **PT80A-A**

is compliant with the following basic requirements of the **EC Directive on Machinery (2006/42/EC)**: Annex I, article 1.1.2; 1.1.3; 1.1.5; 1.2.1–1.2.3; 1.2.6; 1.3.1-1.3.4; 1.3.7; 1.5.1; 1.6.1; 1.7.1; 1.7.3; 1.7.4
and is specified in accordance with EN ISO 13849-1: Cat. 2, Performance Level "d" for energy restriction and detection of end positions.

The incomplete machine complies with all relevant requirements of directives **2006/95/EC (Low Voltage Directive)** and **2004/108/EC (Electromagnetic Compatibility)**.

We declare that the specific technical documents for this incomplete machine have been created in accordance with Annex VII Part B and we undertake to provide these documents, upon request, to the authorities responsible.
Authorised for the creation of the documents required: Gebr. Willach GmbH

The commissioning of the sliding door drive stated above is not permissible until it is incorporated into a doorset compliant with the requirements of the Directive on Machinery (2006/42/EC) and until the manufacturer of the doorset (installation contractor) has completed and signed the EC Declaration of Conformity.

Ruppichteroth, 15 February 2013

Dr. Jens Willach
Managing director

12.2 EC Declaration of Conformity

Willach

EC Declaration of Conformity

Gebr. Willach GmbH
Stein 2
53809 Ruppichteroth
Germany

The manufacturer responsible of the

	Automatic drive system for sliding doors
with type designation	**Portavant 80 automatic**
Serial number:	**PT80A-A**

hereby confirms that products corresponding to the above type of construction comply with all the essential health and safety requirements applying to them as pursuant to the following European Council Directive on the Approximation of the Laws of the Member States of the EU:

2006/95/EC Low voltage directive
2004/108/EC Electromagnetic compatibility

In view of the relevant paragraphs for our product, this declaration is based on the following applied standards and rules:

DIN 18650-1, DIN 18650-2 "Powered pedestrian doors"
DIN EN 16005: 2009 "Powered pedestrian doors"
EN ISO 13849-1 "Safety of machinery - Safety-related parts of control systems"
EN ISO 12100-1 "Safety of machinery"
EN ISO 14121-1 "Safety of machinery - Risk assessment"
BGR 232 (German Professional Association) "Powered gates"
EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3
EN 60335-1 "Safety of household and similar electrical appliances"

Ruppichteroth, 15 February 2013

CE

Dr. Jens Willach

12.3 Type examination by TÜV

ZERTIFIKAT
CERTIFICATE

Hiermit wird bescheinigt, dass die Firma / *This certifies that the company*

Gebrüder Willach GmbH
Stein 2
53809 Ruppichteroth
Deutschland

berechtigt ist, das unten genannte Produkt mit dem abgebildeten Zeichen zu kennzeichnen
Is authorized to provide the product mentioned below with the mark as illustrated

Fertigungsstätte *Manufacturing plant*	**Gebrüder Willach GmbH** **Stein 2** **53809 Ruppichteroth** **Deutschland**
Beschreibung des Produktes *(Details s. Anlage 1)* Description of product *(Details see Annex 1)*	**Schiebetürantrieb für einzel- und doppelflügelige Türsysteme** *Sliding door drive for a single or double leaf door system*
Geprüft nach *Tested in accordance with*	**EN 16005:2013+AC:2015** **DIN 18650-1:2010** **DIN 18650-2:2010** **EN ISO 13849-1:2015** **DIN EN 60335-1:2012 + Berichtigung 1:2014 + Berichtigung 2:2014** **DIN EN 60335-2-103:2015**

Registrier-Nr. / *Registered No.* 44 780 14120102
Prüfbericht Nr. / *Test Report No.* 3518 9300
Aktenzeichen / *File reference* 8000465234

Gültigkeit / Validity
von / *from* 2017-09-21
bis / *until* 2022-09-20

TÜV NORD CERT GmbH
Zertifizierungsstelle Maschinen

Essen, 2017-09-21

TÜV NORD CERT GmbH Langemarckstraße 20 45141 Essen www.tuev-nord-cert.de prodcert@tuev-nord.de

ANLAGE
ANNEX

Anlage 1, Seite 1 von 1
Annex 1, page 1 of 1

zum Zertifikat Registrier-Nr. / *to Certificate Registration No.* 44 780 14120102

Teilprüfung:
Partial test:

Produktbeschreibung: *Product description:*	**Schiebetürantrieb für einzel- und doppelflügelige Türsysteme** *Sliding door drive for a single or double leaf door system*
Typenbezeichnung: *Type designation:*	**Portavant 80 automatic** *Portavant 80 automatic*

Technische Daten:
Technical data:

Nennspannung: *Nominal voltage:*	**110 – 230 VAC**
Nennfrequenz: *Nominal frequency:*	**50 / 60 Hz**
Leistungsaufnahme: *Power consumption:*	**60 W**
Leistung im Stand-by: *Power in Stand-by:*	**1,0 W**
Schutzart: *Protection degree:*	**IP 20**
Dauerfunktionsprüfung:	**500.000 Zyklen** / *cycles*
Endurance test:	**20 – 80 kg (Einflügel** / *single*)
Türflügelgewicht:	**20 – 60 kg (Doppelflügel** / *double*)

Parameter EN ISO 13849-1 für die Funktionen Kraftbegrenzung, Geschwindigkeitsregelung und Positionserkennung:
$MTTF_d$ = 526 Jahre; DC_{avg} = 83%, Kategorie 2, Performance Level d
Parameter EN ISO 13849-1 for functions limit of force, speed regulation and position monitoring:
$MTTF_d$ = 526 years; $D_{c_{AVG}}$ = 83%, category 2, Performance Level d

Der Antrieb erfüllt die Anforderungen gemäß DIN 18650-2 Kapitel 4.4.4 und EN 16005 Kapitel 4.6.4 für einen Niedrigenergieantrieb.
The drive fulfills the requirements according to DIN 18650-2 chapter 4.4.4 and EN 16005 chapter 4.6.4 for low energy drive.

TÜV NORD CERT GmbH
Zertifizierungsstelle Maschinen

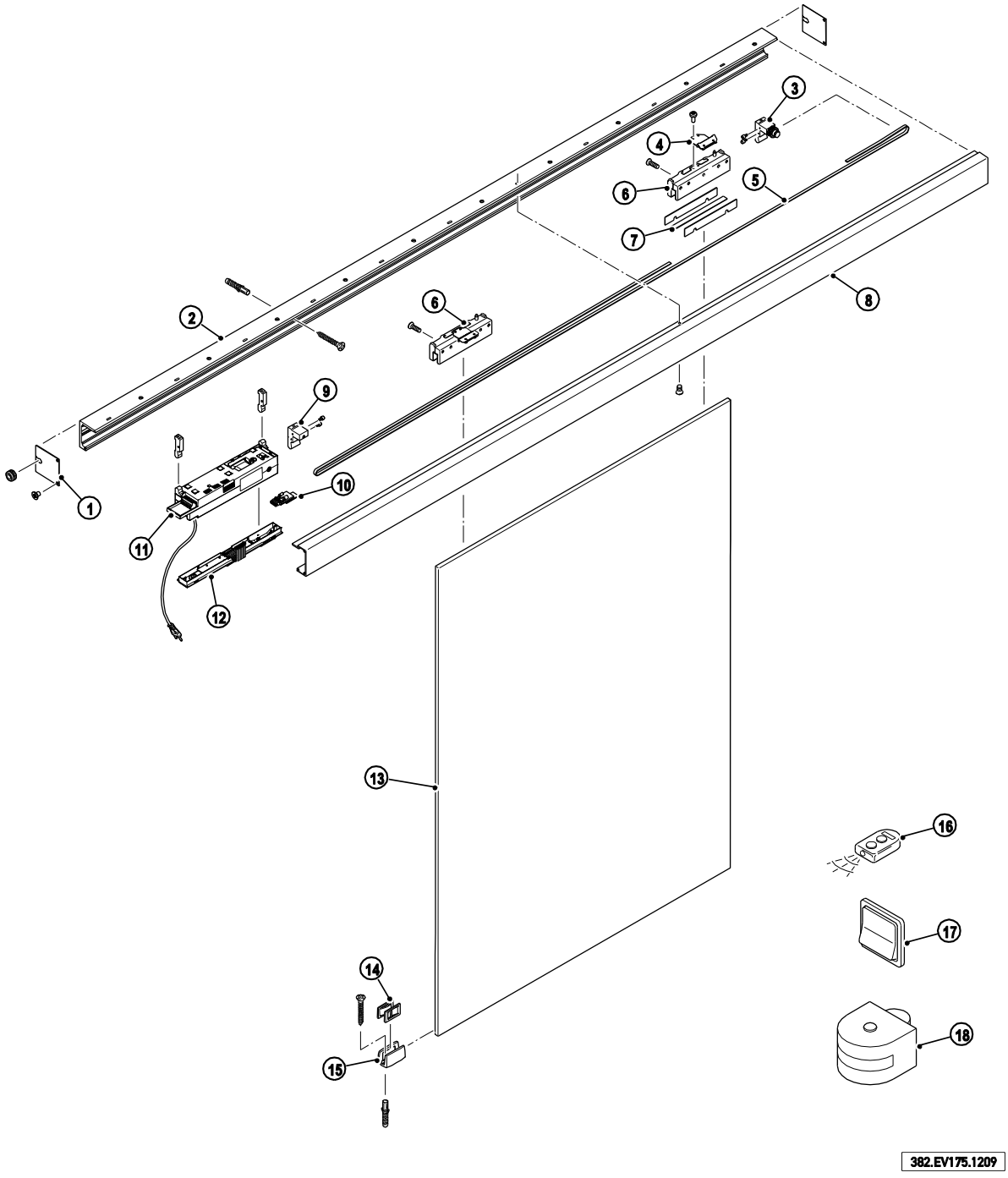
Essen, 2017-09-21

TÜV NORD CERT GmbH Langemarckstraße 20 45141 Essen www.tuev-nord-cert.de prodcert@tuev-nord.de

13 Appendix

13.1 Parts overview and designations

Parts overview:



Parts designations:

(1) End plate
(2) Profile rail
(3) Motion stop with belt idler
(4) Belt bracket
(5) Toothed belt
(6) Roller assembly
(7) Clamping pieces
(8) Cover profile
(9) Motion stop
(10) Radio receiver
(11) Drive and control unit
(12) Control panel
(13) Door sash
(14) Floor guide sliders
(15) Floor guide
(16) Remote control
(17) Radio push button (in conjunction with flush-mounted push button products of various manufacturers)
(18) Motion detector (hardwired)

Imprint

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E-mail vitris@willach.com