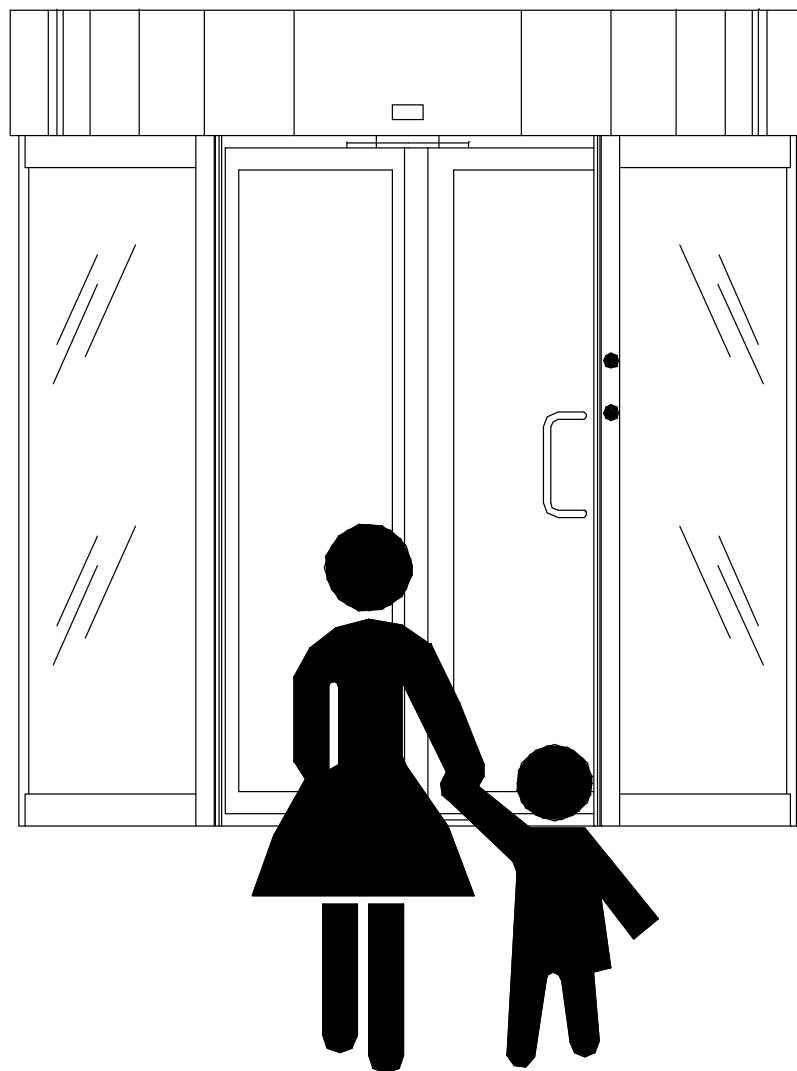


KTV-P&S

Betriebsanleitung
Operation manual

Operation manual





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1. Introduction

1.1 Safety advices

Revolving doors with drive are legally regarded as a machine. Therefore the following items have to be observed:



- Hazardous electrical voltage! May lead to electrical stroke and severe burns.
- Before working on the device, switch voltage-free and secure against re-switching on.
- Maintenance and all other works have to be performed by authorized personnel only.

Please see also item 4

1.1. Door versions

The KTV-P/S is available in 2 different versions.

→ KTV-P

With positioning automatic: Door is to be used manually. A positioning motor which is built-in the ceiling turns the door automatically to the basic position after each passage and stops there.

→ KTV-S

With servo-automatic: Identical function as in KTV-P, but additional movement sensors in the inside and outside area start the door device when activated by persons.

All KTV-P/S-versions are available with a speed limiter.

2. Mech.-/ electronical structure of the control system

The complete control system is installed in the upper ceiling, secured by ceiling plates.

2.1. Construction

- Drum walls made of aluminium special profile with bended glazing or aluminium sheet metal wall with insulation.
- Side wall columns with operational elements and protective strips.
- Floor ring made of stainless steel angle profiles.
- Ceiling made of DORMA aluminium profile system.
- Canopy made of bended aluminium canted sheet metal.
- Fixed turnstile 3 and/or 4 doorleaves incl. brush sealings.
- Optionally with fine-framed or collapsible doorleaves.
- Integrated nightshield locking via manual bolt locking (standard) or electro-mechanical locking (optional with electric nightshield)

2.2. Drive

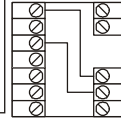
- DC motor
- Torque moment transmission via toothed belt.

2.3. Control system

- Control system integrated in the ceiling.
- Motor drive via supply unit.
- Emergency power unit 230VAC (optional)

2.4. Control- and operational elements

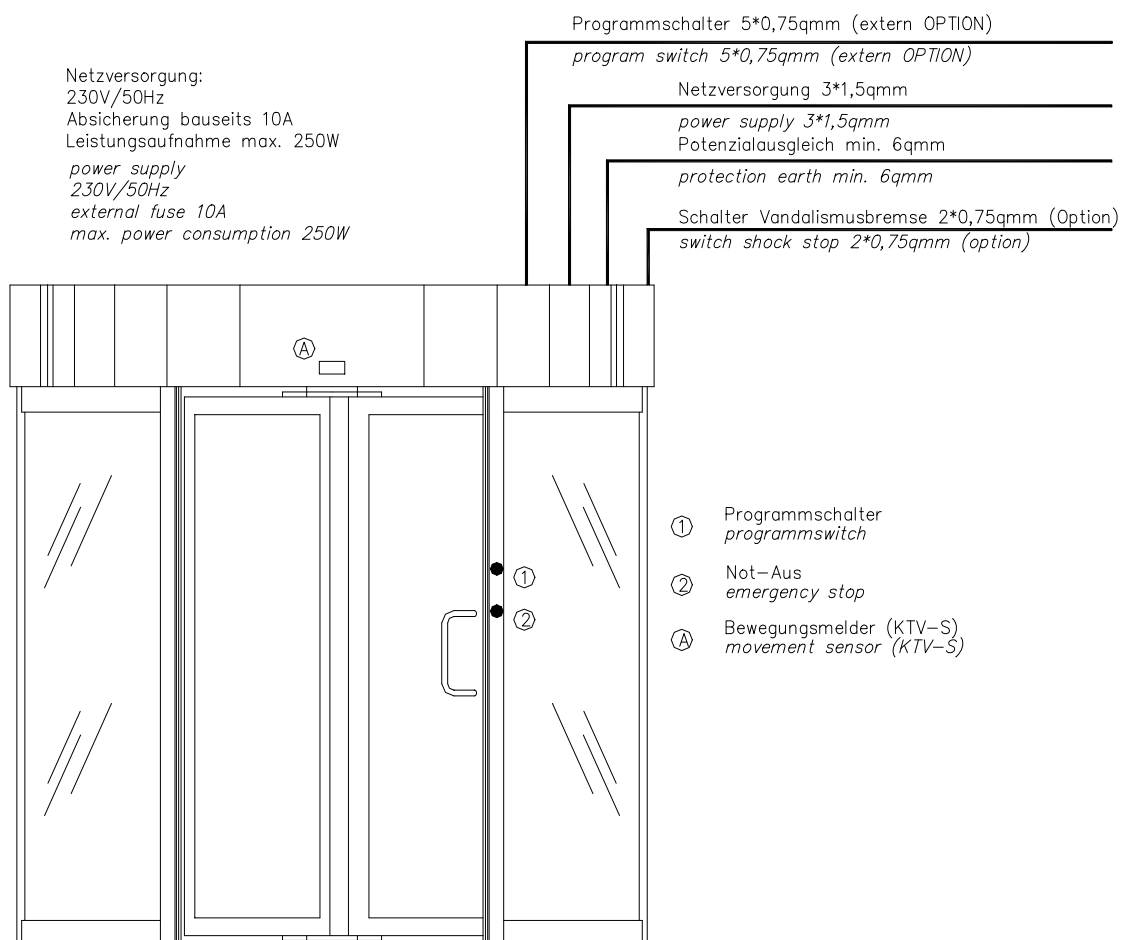
- Program switch (external or installed at column) „locking-AUTO1-AUTO2-summer/escape“.
- Emergency-off switch
- Movement sensor (only KTV S)



3. Wiring

All cables have to be laid by others and must be designed for an operational peak voltage up to 500V and in accordance with VDE 0812, VDE 0245 part 202.

Watch for standardized cable selection and/or its laying and grounding.



4. Operation manual



Having a door device that is to be speeded up manually due to the system, take care that the door device is speeded up in a way that no persons are jeopardized.

- Children are only allowed to access the door device when accompanied by adults.
- Do not speed up the turnstile.
- Do not enter the door with bulky parts (devices with breakout leaves: put the turnstile in corresponding position and fold over doorleaves)
- Enter door device quickly when enough open passage is available.
- Leave door device quickly when enough open passage is available.
- Watch for other users upon manual use, adjust walking speed correspondingly.
- Keep the walking direction inside the door device.
- Follow the turnstile rotation during the passage, do not stop unnecessarily.
- Use manually operated door devices at the handle not the glass.
- Do not put any body parts or other objects into the rotation area of the turnstile.
- The door device is no playground: device has to be used according to its purposes, keep away playing children.

4.1. Program switch

The following operation modes may be chosen via a program switch (at the inside column of the door device or external).

The turnstile can (if it is not locked) be speeded up manually to access speed in any program switch position.

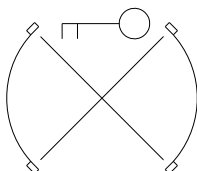
Position 0 „locking“

The drive for the turnstile positioning is switched off. The device can be accessed manually at any time. After the passage the turnstile does not go into the correct position by itself.

The doorleaves can be put manually into the locking position and can be locked manually.

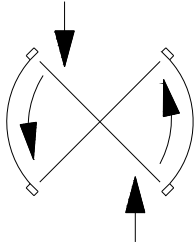
A possible installed illumination is being switched off.

(illustration shows door device in basic position)



As long as the door is locked, the program switch position must remain on 0 „locking“.

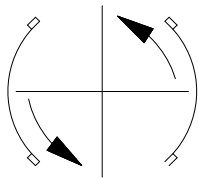
Position 1 „Automatic 1“



The door device can be accessed at any time. After leaving the door area, it turns drive-supported into the next basic position.

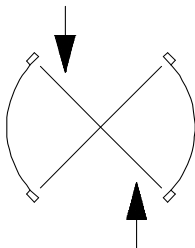
A KTV-S has additional movement sensors in the inside and outside area. If a person is detected, the door re-starts again and stops after leaving the door area in the basic position again.

Position 2 „Automatic 2“



The turnstile rotates with constant speed all the time.

Position 3 „Manual“



The drive for the positioning of the turnstile is switched off. The device can be accessed manually at any time. After the passage the turnstile does not position by itself.

5. Safety devices

- Emergency-off switch
- Power limited drive concept
- Passive or active strips at column (main closing edge) depending on the chosen version
- Distance between lower leaf edge and floor < 8mm.

5.1. *Emergency-off switch*

By using the emergency-off switch the door device can be stopped at any time.
The drive will be separated from supply all-pole.

5.2. *Power limited drive concept*

Depending on the drive- and control components, the drive force is limited according to the current regulations.

5.3. *Safety bumper strips (passive or active)*

Depending on the door version, the device is provided with passive or active strips at the column (main closing edge).

The passive strip serves as impact protection.

The active strip serves also as impact protection and additionally switches off the illumination.

6. OPTIONS

6.1. *Manual nightshield*

The KTV-P/S is available with manual nightshield. The locking is carried out via an inside closing cylinder (the closing cylinder at the KTV-3 with an outside nightshield is only accessible from the outside) at each nightshield segment.

How to proceed:

1. Switch program switch in 0-position (locking).
2. The door device stops immediately.
3. Close nightshield manually.
4. Close locks into the prepared locking pouches in the floor via a closing cylinder. If necessary adjust the alignment of the locking to the floor opening manually.
Attention: closing cylinder locks with 2 turns!

The „unlocking“ proceedings are as follows:

1. Open nightshield manually.
Attention: closing cylinder opens with 2 turns!
2. Choose requested program version at program switch.

6.2. *Automatic nightshield*

The KTV-P/S is available with automatic nightshield.

The „closing“ proceedings:

1. Switch revolving door's program switch into 0-position (locking).
The turnstile is freely rotatable and can be locked as described under **6.3** in all door leaf lock versions.
2. Put the nightshield's program switch into closing position.
The electro-mechanical locking version locks automatically after the nightshield is closed.

The opening proceedings are carried out in reverse order.

6.3. *Door leaf locking*

The KTV-P/S is optionally available with a manual door leaf lock. The locking is carried out via a closing cylinder at the door leaf.

Proceedings:

1. Switch program switch into 0-position (locking).
2. The door device stops immediately.
3. Turn doorleaves into the locking position.
4. Close lock via a closing cylinder into the prepared locking opening in the ceiling.
Attention: closing cylinder locks with 2 turns!
5. Make sure that the program switch remains in 0-position.

The opening proceedings are as follows:

1. Open door leaf locking manually.
Attention: closing cylinder opens with 2 turns!
2. Choose requested program version at the program switch.

6.4. Speed limiter

All KTV doors are available with speed limiter.

The turnstile's rotation resistance increases depending on the number of rpm (U/min.), so that it becomes difficult to speed up.

6.5. Shock stop vandalism brake (only in connection with a speed limiter)

The vandalism brake can be released if necessary with a separate switch.

Release in standstill:

The turnstile is locked in the current position via a vandalism brake, if the device is in standstill. The turnstile is unlocked again by releasing the switch.

Release with rotating turnstile:

The vandalism brake stops the turnstile in rotation abruptly and locks it in the current position. The turnstile is unlocked again by releasing the switch.

There is a high risk that people inside the door get injured by running against the doorleaf while the abrupt braking during the rotation of the turnstile.

The vandalism brake should therefore only be released in case of an empty door or in standstill position.

A DORMA Service inspection becomes necessary if the vandalism brake is released with a rotating turnstile.



The vandalism brake opens in case of power failure and the turnstile unlocks.

6.6. Bookfold turnstile (breakout leaves)

The devices can be provided with breakout leaves. The drive is immediately switched off if the doorleaves are folded over during rotation.

In order to fold over the doorleaves switch program switch into position 3 „summer/stop“ and wait until the turnstile stops in the basic position. Now the leaves can be folded over.

6.7 Transport opening (minimum one wing breakout)

For transportation purposes of bulky or long items one door wing (3- or 4-wing version) or two door wings (4-wing version) can be folded. In order to carry out a controlled breakout, switch program switch into position 3 (summer/stop) and wait until the turnstile stops in the basic position. Then put a toggle at top and bottom in "open" position by using a suitable tool (e.g. long hexagon wrench key SW5). Afterwards the wing can be folded. The breakout wing (s) are being retained in the passage area while the rest of the turnstile is in rotation. The drive is being switched off. In order to avoid an uncontrolled whipping of the door wing (s) it is fixed at the opposite side via magnet.

There is a risk of injury at the top and bottom breakout fitting of the breakout door wing because it sticks out above the door wing! Therefore only to be used as transport opening by trained personnel.

Possible additional options:

Options "manual door locking" and a lower ceiling locking plate should be chosen in order to have an extra lock for the complete turnstile.

To close the door wing, loosen it from the opposite door wing with a little effort. Then put the door wings into basic position and lock again via toggles at top and bottom. Now the requested program switch position can be chosen again.

6.8 Illumination

If the device is provided with low voltage halogen lamps please use only lamps with maximum 12V/20W.

When lamps are driven by the door drive, the illumination is switched off in program switch position „locked“.



7. Maintenance and upkeeping

The device has to be maintained and checked by authorized DORMA personnel before the initial operation and if necessary, but at least once a year, according to (Rules and Regulations for power operated doors ZH1/494 edition 04.89).

It is advisable to conclude a maintenance contract with DORMA.

In order to avoid unnecessary driving moves while cleaning the device, switch program switch into position 3 (manual) or press emergency off switch.



Wipe the floor in the bearing areas of the door with a damp cloth only! The same applies to the cleaning of the whole device. Otherwise too much water can lead to turnstile bearing damages or shorts at electrical parts.

7.1. Daily cleaning

- Clean floor or floor mats, otherwise dragged along parts (such as pebbles etc.) may reduce the function of the door device.
Wiping mats tend to store dirt under the mat profiles. The mat level increases and leads to malfunctions of the door device. This can be avoided by a regular cleaning (if necessary remove and clean the mat).
- Clean the lower ceiling surfaces of the door in order to avoid scratches caused by dragged along small parts.
- Press emergency-off switch in program mode Automatic in order to check its function (device stops).

7.2. Weekly cleaning

- Clean surfaces:
- Use regular glass cleaners for all the glass.
- Wipe stainless surfaces with sulphone soap and a non-scratchy cloth.
The sulphone soap leaves a protective layer.
- Clean coating powder surfaces with water and soap.
- Do not clean anodized surfaces with alkaline soft soap (ph-level between 5,5-7)
- Vacuum/clean brushes. In case of stronger soiling use hair shampoo. Otherwise piled up dirt in the brushes may scratch the surfaces.
- Door devices with bookfold turnstile (breakout leaves): Fold over the door leaves and clean all contact surfaces with a dry cloth. Otherwise the soiling may lead to malfunctions of the door device (and the increased wear and tear of the contacts).

7.3. Yearly maintenance inspection

The door functions have to be inspected at least once a year by authorized DORMA Service personnel.



8. Disturbances

For any disturbances please call the following service hotline:

Tel.: 0180-5240246 (mon.-fri. 7:00 - 21:00 h and sat. 7:00 - 17:00 h)

In addition to that, possible causes and solutions can be obtained from the following list.

All adjustments at the door device may only be performed by authorized DORMA personnel only.

8.1. *Trouble shooters manual*

Please check the following items if the door device is not in rotation:

- Supply voltage available?
- Emergency-off switch open?
- Program switch in correct position?
- Door blocked by any objects?

Please press immediately the emergency-off switch in case of undefined noises.

Inform a service technician if there is still no function after checking the above mentioned items.

9. Control system - technical data

| | |
|--|--|
| Supply: | 230V/50-60Hz |
| Fuse protection by others: | B10A |
| Power input: | approx. 50W (without illumination) |
| Illumination: | max. 500W (230VAC) |
| Motor: | DC motor 60VDC |
| Control voltage 24VDC: | emergency-off program switch movement sensor proximity switch |
| Pilot circuit: | 24VDC/4,5VA short circuit-proof |
| Rotation speed: | approx. 1rot./min.(motor-driven) |
| Authorizations: (depends from facilities) | Maschinenrichtlinie 98/37/EG mit DIN18650-1,-2: 2005; DIN EN954-1:1997 BGR 232:2003 Niederspannungsrichtlinie 73/23/EG mit EN60335-1:2005 in Verbindung mit DIN18650:2005 AutSchR:1997 in Anlehnung |
| Kind of protection: | IP54 |
| Temperature range: | -20°C to +60°C |
| Humidity of air: | dry |

Technical alterations are subject to change.