

**Sys**tem  
**Cata**logue

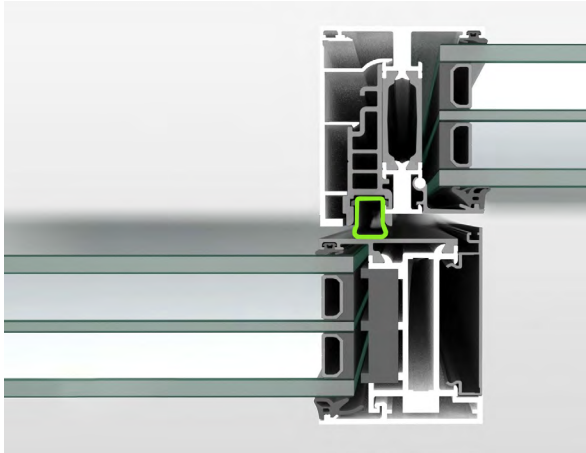
**air-lux SW 75 sliding window**



**air-lux SW 75 system**

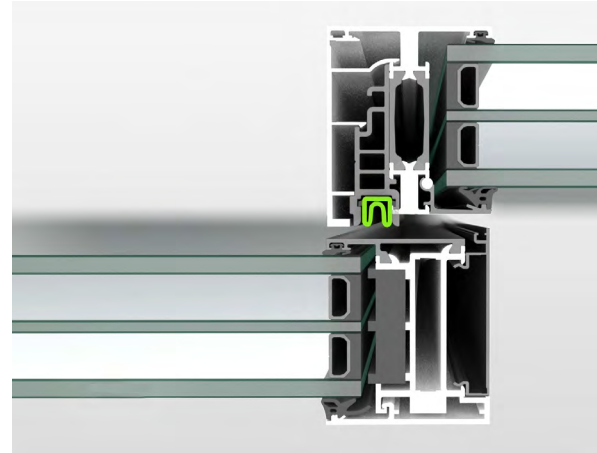
**100% impermeable, excellent running characteristics**

that could previously only be achieved with side-hung windows. When the gasket is open (gasket is deflated), the gasket is rolled up and the sliding window can be moved with minimum effort. Unlike in systems with brush or slide seal, no trade-offs need to be made between tightness and running characteristics.



**Inflated gasket**

When the push button is pressed, air is pumped into the gasket. The gasket presses against the sliding sash and tightly seals the gap between the sliding sash and the frame.



**Deflated gasket**

To open the window, press the push button. This deflates the gasket, which causes it to detach from the sliding sash. The sliding window can now be opened.



[air-lux.com/en](https://air-lux.com/en)



[air-lux.com/sliding-window](https://air-lux.com/sliding-window)

### air-lux SW 75 system



#### **Push button**

The push button is the central control and display element and is used for unlocking, locking, status display as well as fault and error display.



#### **Control board**

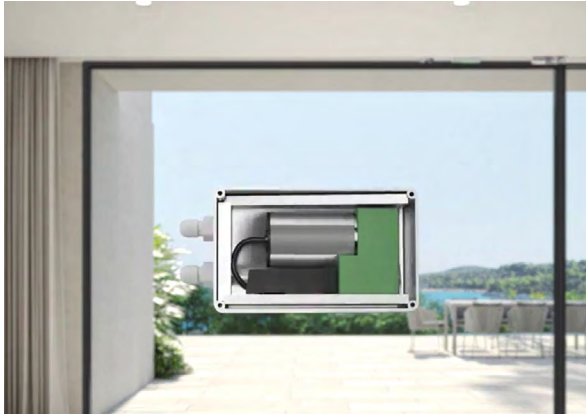
The control board is an electronic component used in every window to process electrical signals, trigger actions and control the window's functions. It contains circuits, microcontrollers and interfaces to connect sensors, process data and send control commands to other parts of the window.



#### **Locking bolt**

The sliding window features a locking system with an electrically controlled locking bolt. When the sliding window is open, whether manually or motorized, in the event of a power failure it can be manually pushed into the closed position and the locking bolt will then lock automatically. The locking bolt is also available with VdS class C certification.

## air-lux SW 75 system



### **Compressor**

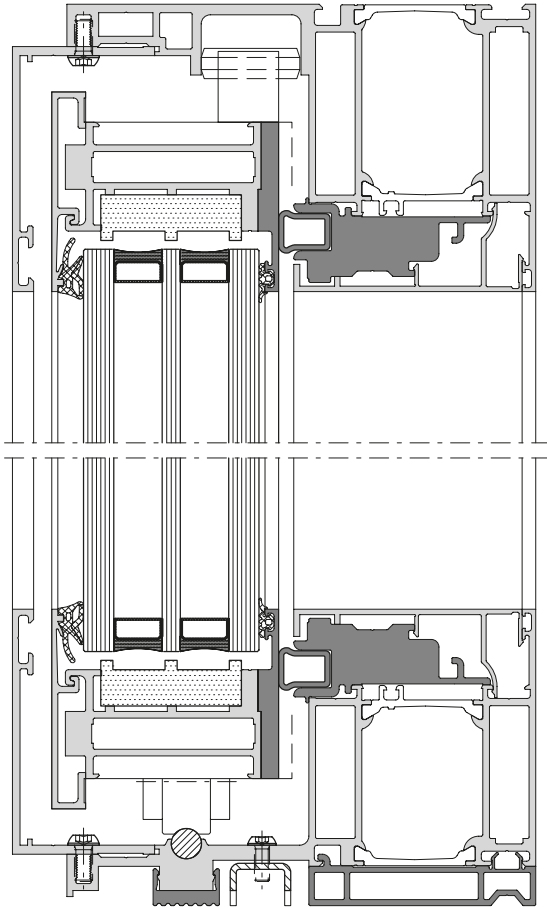
The built-in compressor is at the heart of the patented sealing system. The virtually silent compressor maintains constant pressure inside the air gasket. Although only  $< 1$  bar is required, 100% tightness is guaranteed through continuous pressure monitoring.



### **Slide mechanism**

The roller and stainless-steel track guarantee optimal running properties of the sliding window. The integrated roller can transfer loads of up to 1,800 kg per sash to the track.

## System



### Characteristics and benefits

- Sliding window system with thermal insulation for maximum transparency and light levels
- Inflatable gasket eliminates friction when opening and closing
- Floor-to-ceiling installation
- Exterior sliding sash for clean lines inside
- Compatible with Schüco AWS 75.SI+ and AD-UP 75
- Can be opened and closed manually or motorized
- All components concealed in the frame
- Zero threshold

### Tests and standards\*

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Wind load resistance in accordance with  
DIN EN 12210 up to class C4/B4

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Air permeability in accordance with  
DIN EN 12207 up to class 4

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Water tightness against driving rain in accordance  
with DIN EN 12208 up to class EI 1500

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Burglar resistance in accordance with  
DIN EN 1627\* up to class RC3

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Thermal insulation in accordance with  
DIN EN ISO 10077-2\*\* from 0.8 W/(m²K)

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Sound insulation in accordance with  
EN ISO 10140 up to 43 dB

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Operating forces in accordance with  
DIN EN 13115 up to class 2

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\* Depending on the design (see test certificate)

\*\* Calculation basis: schema A

Element dimensions:

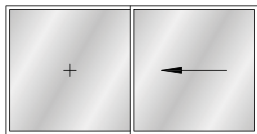
W × H 6,000 mm × 2,500 mm /

Glass: 0.5 W/(m²K), 0.034 psi

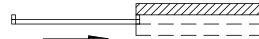
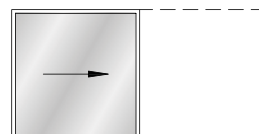
**The air-lux SW 75 system may only be installed  
by certified or trained metalwork partners**

## Sliding window opening types

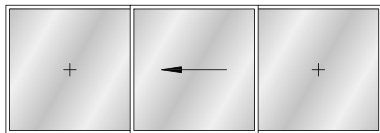
The air-lux sliding window is a single-track system in which the sliding sash moves on the exterior in front of the fixed glazing. All schema are drawn from the exterior point of view.



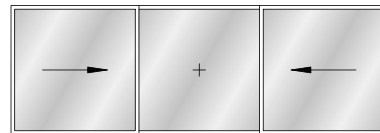
Schema A



Schema A pocket

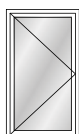


Schema G

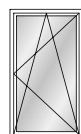


Schema K

**air-lux can be used to combine window and door elements.**



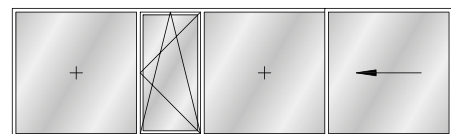
Doors



Tilt-and-turn windows

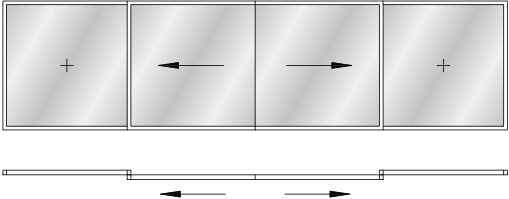


Ventilation sashes

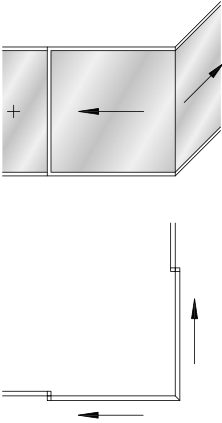


Sliding window schema A and tilt-and-turn window

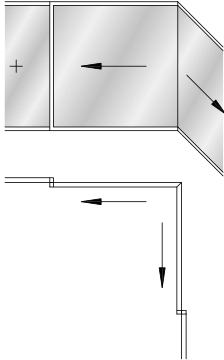
**Sliding window opening types**



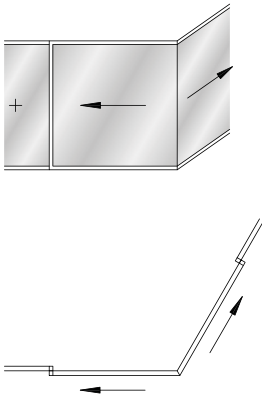
Schema C



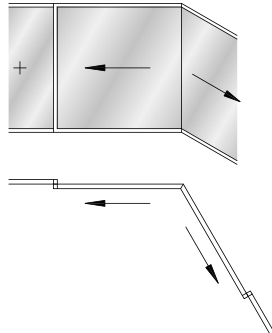
Schema C 1.1



Schema C 1.2



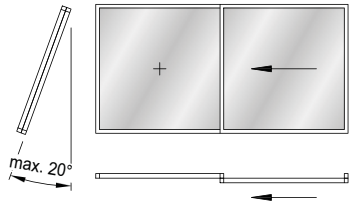
Schema C 1.3



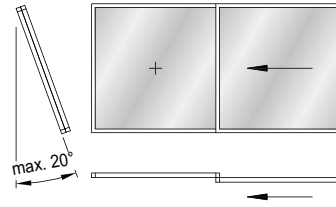
Schema C 1.4



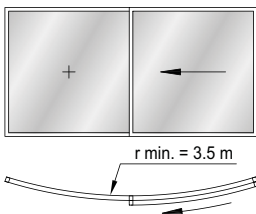
Special solutions



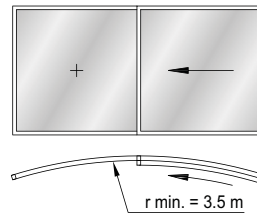
Schema A 2.1



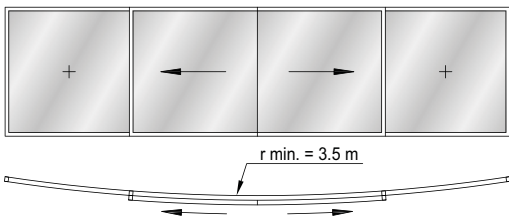
Schema A 2.2



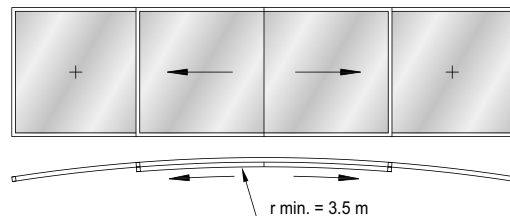
Schema A 3.1



Schema A 3.2

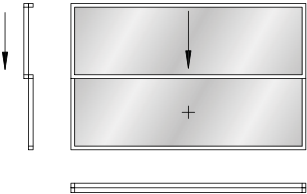


Schema C 3.1

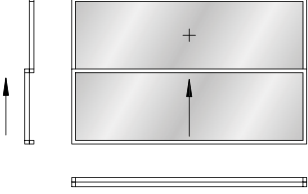


Schema C 3.2

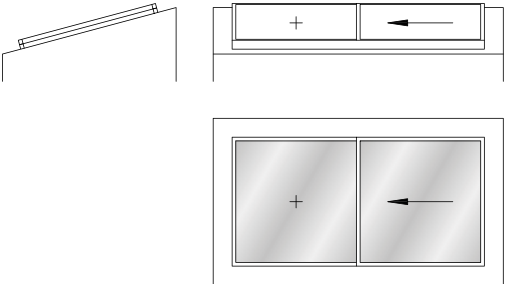
Special applications



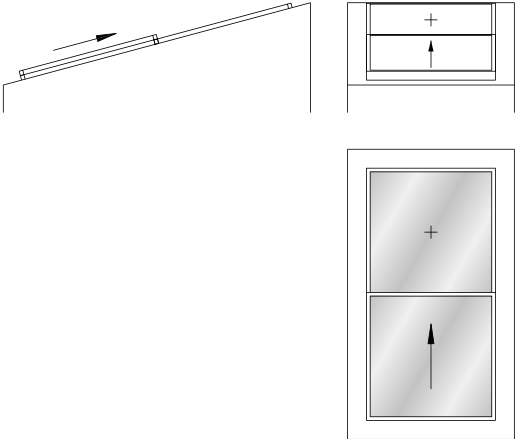
Schema A 5.1



Schema A 5.2



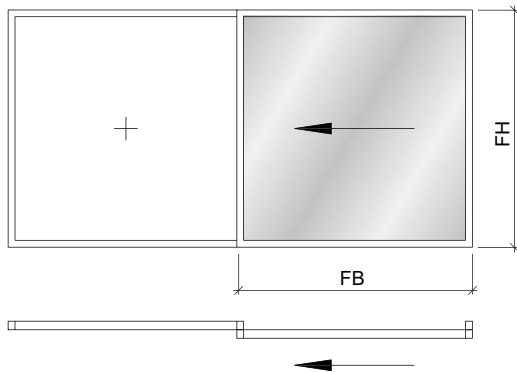
Schema A 6.1



Schema A 6.2

Dimensions available on request.

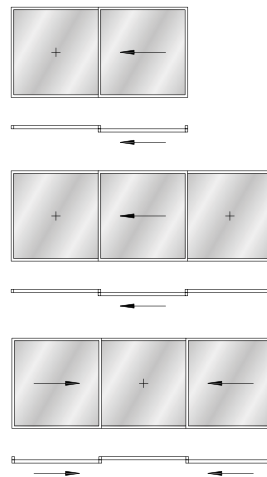
**Dimensions**



**Dimensions – Schema A, G and K**

Width: min. SW 1,400 mm  
max. SW 6,000 mm

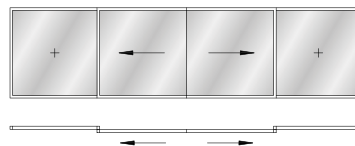
Height: min. SH 700 mm  
max. SH 6,000 mm



**Dimensions – Schema C**

Width: min. SW 1,200 mm  
max. SW 6,000 mm

Height: min. SH 1,100 mm  
max. SH 6,000 mm



**Versions**

Motorized                      Width: min. SW 1,700 mm  
RC                                Width: min. SW 1,800 mm  
Motorized threshold      Width: min. 700 mm

Area: max. 18 m<sup>2</sup>  
Weight: max. 1,800 kg











Fixed glazing: up to maximum glass sizes

**Other dimensions available on request.**

SW = sash width  
SH = sash height

CE datasheet

Test results for product standard EN 14351-1

	<p><b>Air permeability</b> Classification to standard EN 12207: 2016-12</p>	up to class 4
	<p><b>Driving rain impermeability</b> Classification to standard EN 12208:1999-11</p>	up to class E1500
	<p><b>Noise insulation</b> Dimensions in accordance with DIN EN ISO 10 140-2</p>	up to 43 dB
	<p><b>Wind load</b> Classification to standard EN 12210: 2016-03</p>	up to class C4/B4
	<p><b>Thermal insulation</b> Classification to standard EN 10077-1</p>	<p><math>U_w</math> value/property-specific 0.83 W/m<sup>2</sup>K, <math>U_g</math> 0.5 W/m<sup>2</sup>K 0.92 W/m<sup>2</sup>K, <math>U_g</math> 0.6 W/m<sup>2</sup>K</p>
	<p><b>Burglar resistance</b> in accordance with EN 1627-1630</p>	up to RC 3
	<p><b>Bullet-resistant</b> Special designs up to resistance class BR4-NS</p>	
	<p><b>Operating forces</b> Classification to standard EN 13115:2020-11</p>	up to class 2
	<p><b>Fall protection</b> in accordance with DIN 18008-4</p>	Category A
	<p><b>Roll-over capacity</b> in accordance with ift guideline BA-01/1</p>	up to class 6

US datasheet

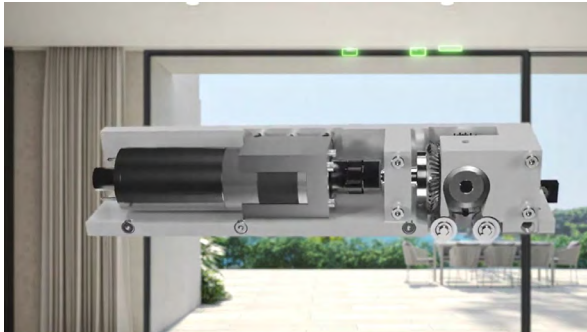
**AAMA/WDMA/CSA 101/I.S.2/A440-11**

**Class CW-PG50**

Tested dimensions: 10,973 mm/width × 3,962 mm/height (432 in × 156 in)

	<p><b>Air permeability</b> Classification in accordance with standard ASTM E283-04</p>	<p>0.00 cfm/ft<sup>2</sup> @ 300 Pa (6.24 psf)</p>
	<p><b>Driving rain impermeability</b> Classification to standard ASTM E331-09 Uniform pressure ASTM E547-09 Cyclic pressure</p>	<p>No entry @ 958 Pa (20psf) No entry @ 958 Pa (20psf)</p>
	<p><b>Wind load</b> Classification to standard Uniform structural load Design pressure ASTM E330-02 (10) ASTM E330-02 (10) Deglazing ASTM E987-88 (09)</p>	<p>+/- 2394 Pa (+/- 50 psf) +/- 3591 Pa (+/- 75 psf)  No damage</p>
	<p><b>Hurricanes</b> Classification to standard TAS 201/2002/203</p>	<p>HVHZ, wind zone 4, large and small missile impact</p>
	<p><b>Burglar resistance</b> Classification to standard ASTM F842-04 Forced Entry</p>	<p>Burglar resistance Classification in accordance with standard ASTM F842-04 Forced Entry</p>
	<p><b>Bullet-resistant</b> Special designs up to resistance class BR4-NS</p>	<p>Window height up to 3 m</p>
	<p><b>Operating capacity</b> Classification to standard ASTM E2068</p>	<p>12.4 lbf initial/13.8 lbf</p>
	<p><b>Thermal insulation</b> Classification to standard NFRC glazed wall system NFRC sliding door</p>	<p>0.18 Btu/hr.sqft. °F (1.02 W/m<sup>2</sup>K) 0.24 Btu/hr.sqft. °F (1.36 W/m<sup>2</sup>K)</p>

Optional features



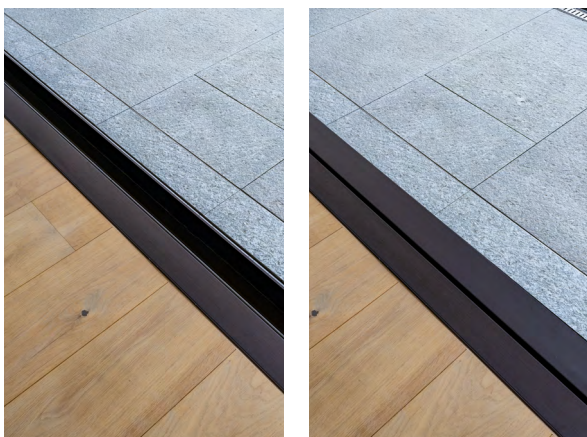
**Motorization**

The air-lux motor is concealed in the frames of all opening types and avoids the need for niches or recesses in the ceiling. The motorized opening and closing of the sliding window is gentle and quiet. In the event of a power failure, the sliding window can easily be slid manually and locked without power. In the standard version, a safety cut-off is installed as a basic safety feature.



**Fall protection**

For constructions with no escape option, air-lux offers passive protection in the form of integrated fall protection. The laminated safety glass is installed on three sides in the frame opening.



**Motorized threshold**

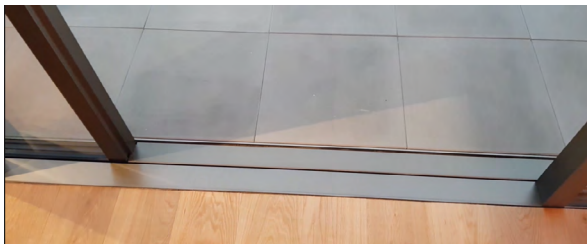
In flush sliding systems, there is a recess in the track area when the window is open. On request, air-lux can provide a motorized threshold, which ensures barrier-free access when the sliding window is open.

Optional features



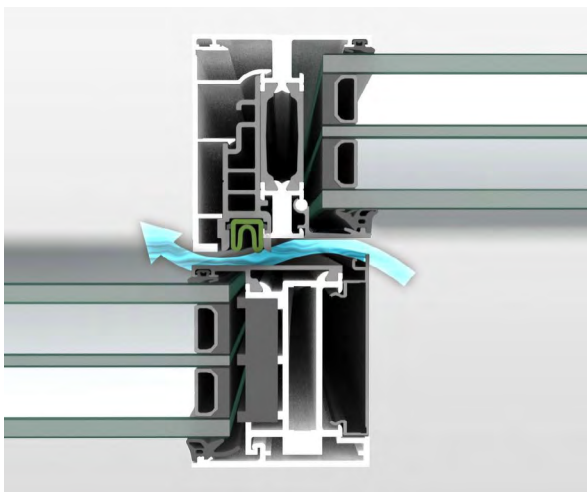
**Bar slider**

We also offer a bar slider as an alternative to the motorized threshold. It works like a kind of trailer that is pulled behind the sliding window. This means that an additional fixed area is always required for the bar slider, where the carriage can be 'parked' when closed. If this is not possible, the opening can be closed with a motorized threshold.



**Gap ventilation**

In the case of gap ventilation, the sliding sash is opened by approx. 160 mm, which creates a 90 mm wide opening. By pressing the push button again, the sliding window is locked in a second locking plate as if it were closed. The gasket is also inflated and presses against the sliding sash to prevent movement noise in strong winds.



**Indirect ventilation**

In the air-lux sliding window system, natural air convection can be achieved via the gasket. The gasket can be deflated via an additional push button or the building management system. There is a 5 mm opening between the sliding sash and the fixed element. The locking bolt in the upper profile remains closed, which means that the window is still closed and 100% secure. Another advantage of indirect ventilation over a conventional ventilation sash, such as a tilting window, is the improved sound insulation.

## Optional features



### Alarm bundle

If necessary, air-lux provides independent contacts for alarm systems that have been tested by the VdS (Verband der Sachversicherer). The air-lux alarm bundle includes a magnetic contact for position monitoring and a bolt contact for closure monitoring. All components are installed concealed in the system.



### Building management system

Do you want to be able to monitor, open and close your air-lux sliding windows from anywhere? Directly connecting the air-lux control board to your building management system makes this easy.



### Insect screen

The insect screen is suitable for both large and small sliding windows. The pleated blind is pushed to the side by means of a grip rail and kept in the desired position. Thanks to its sophisticated design, the pleated blind can be operated with little effort. The pleated blind is integrated in the side of the profile and is not visible when the sliding window is closed.

The insect screen is available for a sliding window height of up to 3,300 mm and an opening width of 850 mm.





Optional features



**All-glass design**

The air-lux sliding sash is also available in an all-glass design. The glass is designed with a step on two or, if desired, on all four sides. This makes the glass surface appear even larger and makes the window truly eye-catching.



**All-glass design**

**Mullion-free corner and bi-parting sliding elements**

With air-lux, the largest possible openings can be realized with either postless corner or bi-parting sliding elements.

The labyrinth construction, double stop gasket and optional motorized locking mechanism with at least three locking points means that these variants are also impermeable.



**Maritime**

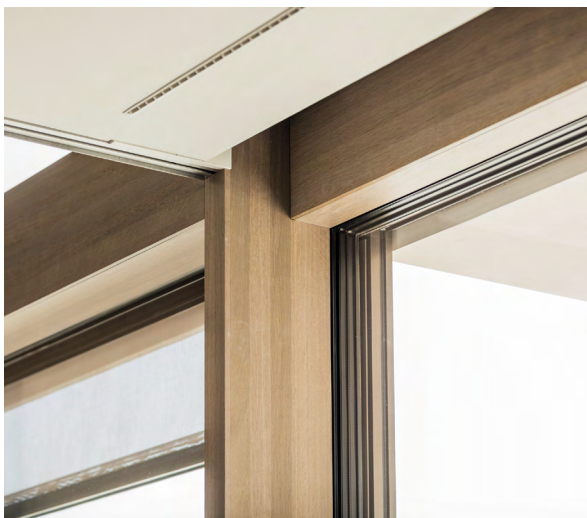
In areas near the sea, swimming pools or in industrial areas, the aggressive atmosphere places increased demands on buildings and their components. For such applications, air-lux has special components in its product portfolio to ensure the longevity of the system even under these conditions.

Optional features



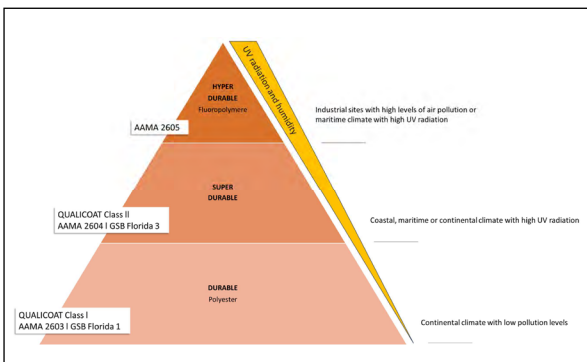
**Curved/tilted**

With air-lux, the only limit to design is your imagination. There are many architectural options available, not only in terms of size, but also in terms of shape and installation type.



**Materials**

air-lux Connect offers the option of using different materials. As air-lux Connect 'achieves high aesthetic quality without compromising technical performance,' architecture magazine AIT presented the system with the AIT Award in 2013. air-lux Connect offers the same technical advantages as the basic aluminum version. In addition to the bronze finish, different types of wood are also available.



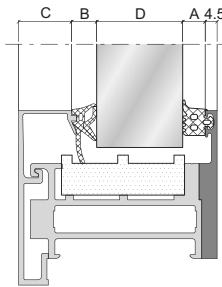
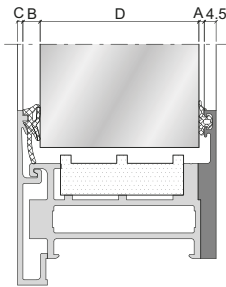
**Surface**

There are no 'standard' colors at air-lux. Each order is created according to the customer's specifications and individually coated upon receipt of the material. Powder coating in your favorite color or anodizing for natural metallic character.

Three classes of powder coating can be selected according to the installation location and loads.



Overview of glass thicknesses for sash profiles



D = glass thickness

Interior seal A	Exterior seal B						Glazing bead C
	284834	284835	284835	284836	284836	284837	
245743 (2 mm)		60	59	58	57		555160
		56		55	54	53	555320
		52	51	50	49	48	555330
		47	46	45	44	43	555340
		42	41	40	39		555350
224063 (4 mm)				38			555350
224267 (5 mm)				37			555350
284321 (6 mm)				36			555350
224268 (7 mm)				35			555350
224105 (8 mm)				34			555350
224269 (9 mm)				33			555350
224205 (10 mm)				32			555350
224313 (11 mm)				31			555350
244041 (12 mm)				30			555350
				29			555350
224312 (13 mm)					28		555350
						27	555350

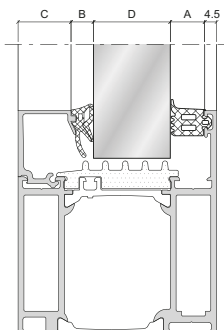
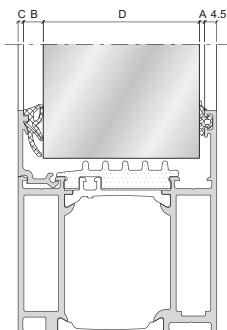
Avoid these glass thicknesses where possible. In the event of deviating tolerances, the glazing bead must be replaced.

The glazing table is based on the nominal dimensions of the profiles and filling elements. Due to different tolerances (profiles, glazing beads, glass seals and glass elements), we recommend testing your chosen outer glazing seals beforehand on an element. If necessary, the next smaller or larger glazing bead/seal can be used.

**Note:**

For sliding windows as in schema C with stepped-edge glazing, the minimum glass thickness is 48 mm.

### Overview of glass thicknesses for fixed glazing



D = glass thickness

Interior seal A	Exterior seal B						Glazing bead C
	284834	284835	284835	284836	284836	284837	
245743 (2 mm)		60	59	58	57		555150
		56		55	54	53	555280
		52	51	50	49	48	555290
		47	46	45	44	43	555300
		42	41	40	39		555310
224063 (4 mm)				38			555310
224267 (5 mm)				37			555350
284321 (6 mm)				36			555350
224268 (7 mm)				35			555350
224105 (8 mm)				34			555350
224269 (9 mm)				33			555350
224205 (10 mm)				32			555350
224313 (11 mm)				31			555350
244041 (12 mm)				30			555350
				29			555350
224312 (13 mm)					28		555350
						27	555350



Avoid these glass thicknesses where possible. In the event of deviating tolerances, the glazing bead must be replaced.

The glazing table is based on the nominal dimensions of the profiles and filling elements. Due to different tolerances (profiles, glazing beads, glass seals and glass elements), we recommend testing your chosen outer glazing seals beforehand on an element. If necessary, the next smaller or larger glazing bead/seal can be used.

## Electrical connection

- Each air-lux sliding window is fitted with a junction box, which is marked with an electrical connection sticker.



Electrical connection sticker



- All cables are clamped or soldered in this junction box.
- The junction box is located in the upper frame profile.
- All cables are labelled.
- Only one power supply is required for commissioning.

Bi-parting and postless corner sliding elements are designed for master-slave operation: The master sliding element (first opening window) requires a power supply and is responsible for all control and blocking signals. The slave sliding element (second opening window) requires a power supply.

## Supply line

100–130 V AC, 50–60 Hz

200–240 V AC, 50–60 Hz

The following requirements must be observed for the supply line:

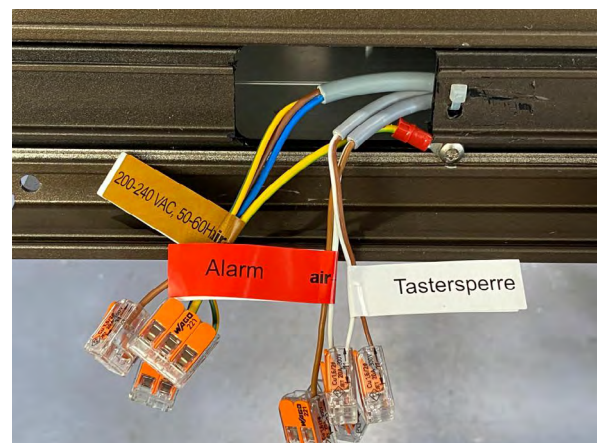
- Each window must be equipped with a voltage between 100 V AC and 130 V AC/ 200 V AC and 240 V AC.
- The connecting cables are labelled with the above sticker.
- For air-lux sliding windows, a separate fuse must be provided per floor (max. 10 windows).

## Button lock

Pushbutton lock

A button lock is installed in every air-lux sliding window as standard.

- The button lock must be isolated on the building side to activate the lock. The window is locked electronically.
- A separate relay must be installed for each window!
- In the case of bi-parting and mullion-free corner sliding elements, the button lock is only connected to the master window (first opening).



### Alarm contact

#### Alarm

An alarm contact is fitted in every air-lux sliding door as standard.

- The alarm contact may be supplied with max.  $U = 30 \text{ V DC} / I = 2 \text{ A}$ .
- When the contact is closed, the window is closed and locked.
- Since the locking bolts are evaluated electronically, a UPS (uninterruptible power supply) must be installed for the alarm system to function correctly.
- In the case of bi-parting and mullion-free corner sliding elements, the alarm contact is only connected to the master window (first opening).

### VdS contacts

#### VdS lock contact

VdS contacts can be installed in the system on request.

- Separate VdS magnetic contact for monitoring the window in the 'CLOSED' position.
- Separate VdS magnetic contact for monitoring the window in the 'gap ventilation' position.
- Separate VdS lock contact for position monitoring of the locking bolt.
- An EKOM (electronic contactless transmitter) is installed in sliding windows with alarm glass.

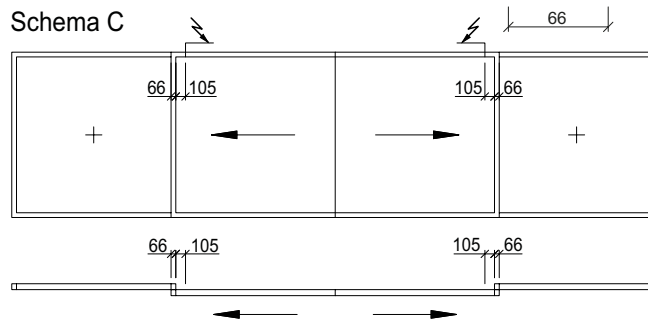
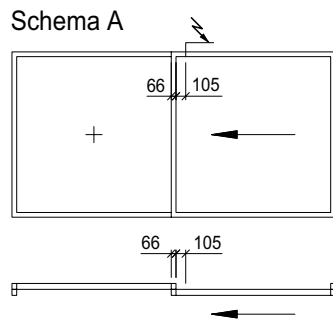
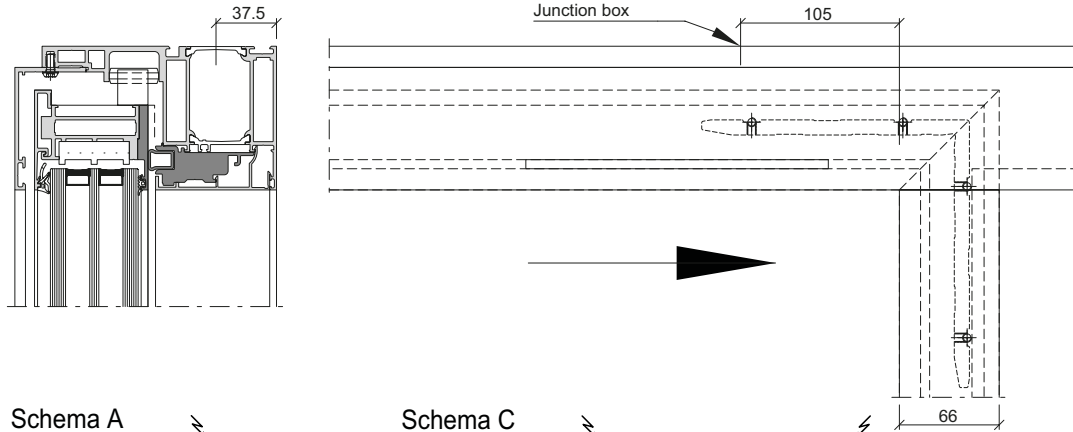
### External operation

In addition to the push button installed as standard, external controls are also available (e.g. for building management systems, fingerprints etc.).

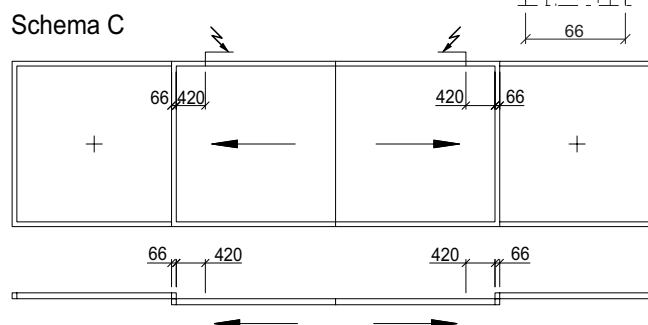
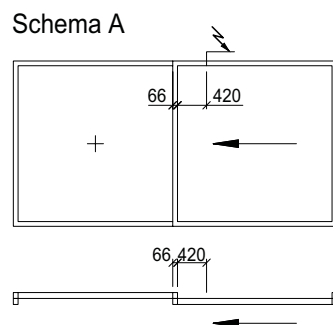
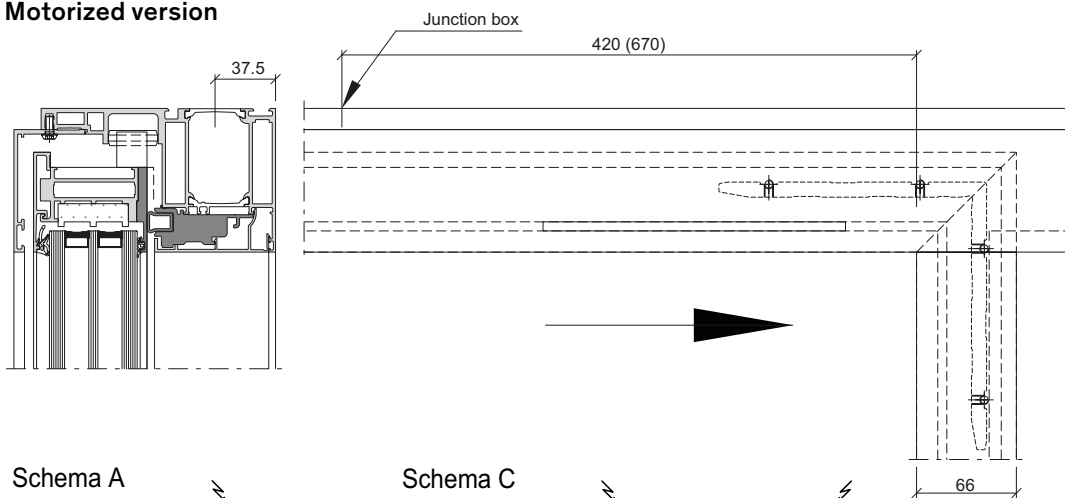
- Separate empty conduits must be laid for external controls. Shielded cables must be used (e.g. U72 2×4×0.8).
- All controls are isolated from the building management system.
- In the case of bi-parting and mullion-free corner sliding elements, a separate control is required for both sliding windows.

## Electrical connections at the top

### Manual version



### Motorized version



**Exception:** For sliding windows diagram schema A Pocket or sliding windows that are not accessible from the outside, the junction box is 670 mm (motorized version).

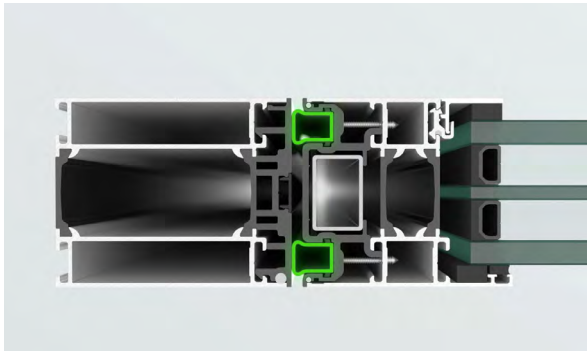


Further applications with the air-lux sealing system



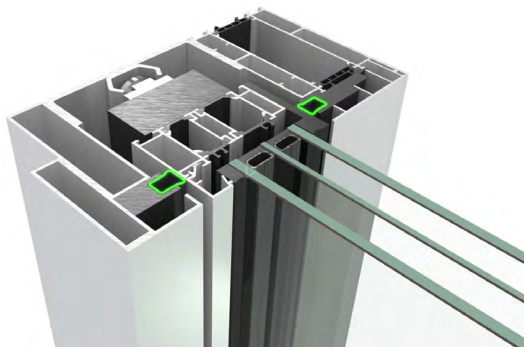
**air-lux PD 75 pivot door**

Pivot doors are a fascinating solution for large entrance areas. At the push of a button, the door swings weightlessly around the asymmetrical pivot point on both sides. Pivot doors enable very large formats and a wide range of design options – customized in glass and other materials.



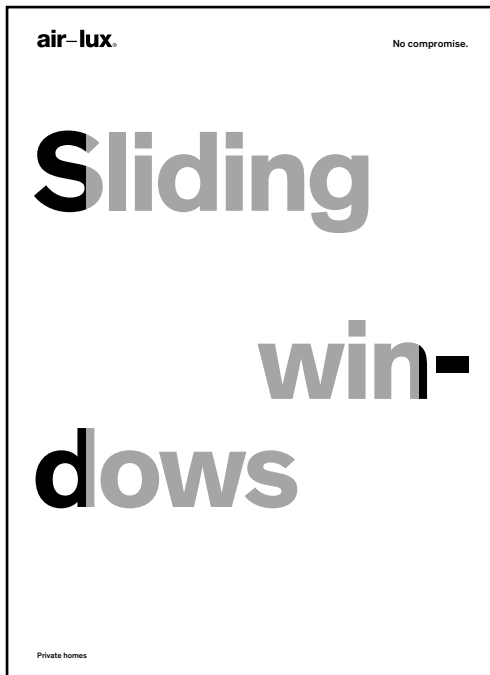
**air-lux DW M-XL descending window**

At the push of a button, the entire descending window magically sinks into the floor to blend the inside with the outside – completely seamlessly.





Brochures



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