

INDUSTRIAL SECTIONAL DOORS

Series 60 - faster - smarter - safer



Energy-saving operator convenience

With fast door operators, you save valuable energy and speed up your work processes as well. Whatever your requirements for performance, speed and convenience, we offer you perfectly matched operator solutions with suitable security features, operating aids and signal transmitters. This optimally supports the processes in your company, making it an investment that quickly pays off.









Opening speed up to 1.0 m/s



electricity cost saving of approx. 80%*

* Power consumption in energy-saving mode without any connected accessories: approx. 2 W/h

WA 500 FU impresses with an opening speed of up to 1 m/s, speeding up logistics processes and reducing thermal losses. In addition, the frequency converter control with soft start and soft stop takes the stress off all mechanical door elements, guaranteeing quiet door travel. With the ITO 500 FU operator developed especially for underground garages, the door achieves an opening speed of up to 0.5 m/s.

→ Further information can be found starting on page 80.

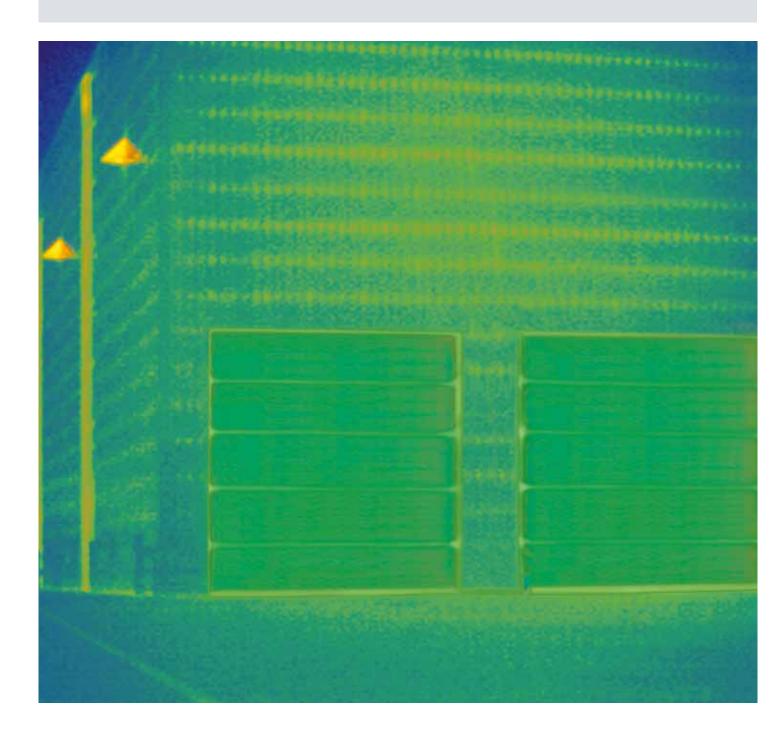


NON-CONTACT SAFETY. Efficient monitoring of the closing edge increases safety. The operators WA 500, WA 500 FU and ITO 500 FU optionally come with leading photocell VL1-LE, which responds to movements and obstacles without any contact, reliably stopping the door if necessary – at no surcharge.

→ Further information can be found starting on page 92.

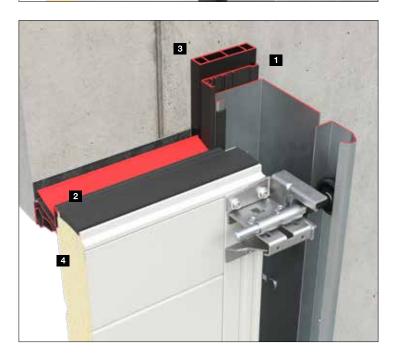
Energy-saving detailed solutions

Industrial doors with sections with thermal break and ThermoFrame connection offer high thermal insulation and low energy losses. High-quality seals on the side frames and lintel as well as the bottom seal with double chamber as standard reduce air permeability. Further details such as optional ribbing infill, corner seals and lintel counter seal achieve even better airtightness.











ENERGY-SAVING DOORS. The steel sectional doors and aluminium sectional doors with 67 mm depth with thermal break feature excellent thermal insulation, saving you valuable energy costs. With optional quadruple panes or climate glass, the thermal insulation value can be increased even further.

→ Further information can be found starting on page 40.



up to 21% better thermal insulation 1)



up to class 4 low air permeability 2)

ENERGY-SAVING EQUIPMENT. The optional ThermoFrame 1 providing a thermal break between frame and brickwork as well as double seals on the lintel 2 improve the thermal insulation and air tightness of your doors. Details such as the spacer profile as a subframe 3, the additional lintel counter seal 4 and optional infills 5 additionally reduce energy losses – especially in changing climatic conditions.

→ Further information can be found on page 59.

TOP. SPU 67 Thermo (Fig. left) and ALR 67 Thermo (Fig. right)

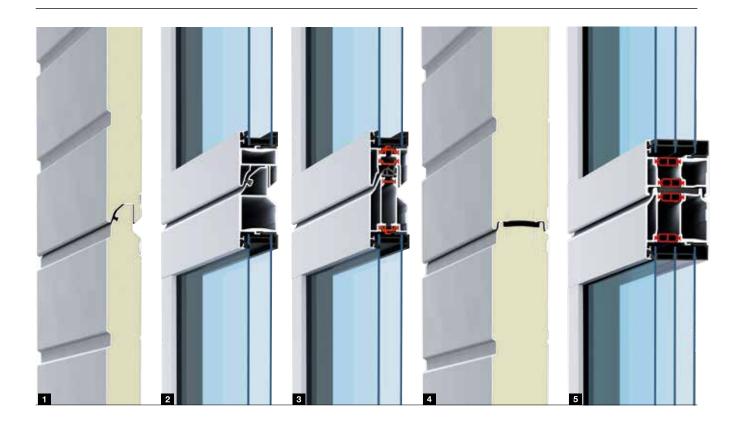
CENTRE. Viewed from outside BOTTOM. Viewed from inside

SPU67 Thermo without glazing with optional ThermoFrame for a door surface of 3000 × 3000 mm

²⁾ SPU67 Thermo without glazing with optional ThermoFrame and the "Increased air permeability" set

Section and frame versions

Overview



42 mm depth

The steel sections 1 and aluminium frame 2 are designed for the tough everyday conditions in industrial and commercial applications and offer good thermal insulation. In case of higher thermal insulation and maximum transparency requirements, we recommend doors with an aluminium frame with thermal break 3.

67 mm depth

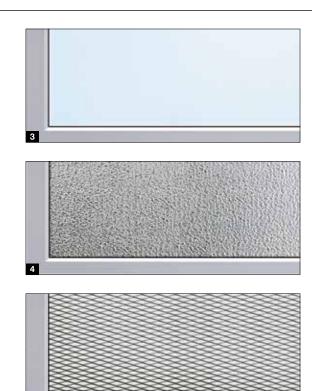
The standard steel sections with thermal break 4 and aluminium frame 5 feature an excellent thermal insulation of up to 0.51 W/(m²·K) in the SPU 67 Thermo and enable door sizes of up to 10 m in width. The thermal break between the exterior and interior also reduces the accumulation of condensation water on the inside of the door.



The two depths can be combined depending on the requirements in the project, as the door has a fully matching appearance.







Steel sections

The double-skinned, PU-foamed sections are especially robust and, thanks to a hot-galvanized steel surface with high-adhesion primer coating (2C PUR), are optimally protected against adverse weather effects. They are used in steel sectional doors and glazed aluminium frame doors with bottom section.

- The resistant Stucco surface finish offers uniform ribbing every 125 mm in the section and in the section transition. Minor scratches and traces of dirt are harder to notice on this surface finish.
- The elegant Micrograin surface finish is smooth and features a characteristic fine line pattern. This surface finish harmonises especially well with modern facades that are characterised by their clear design.

The inside of the door is Stucco-textured in Grey white, RAL 9002.

Aluminium frame

The aluminium frames are made of high-quality extruded profiles. They are used in glazed aluminium frame doors and as a glazing element in steel sectional doors.

Glazing 3

The standard double (with 42 mm depth) or triple (with 67 mm depth) Duratec synthetic glazing offers maximum scratch resistance and good thermal insulation. In case of higher thermal insulation requirements, we recommend quadruple glazings or climatic double panes.

Panels 4

The double-skinned panels are ideal as a robust bottom profile in glazed frame doors.

Mesh infills 5

For collective garages, expanded meshes or perforated sheet infills provide optimal ventilation.

→ Further information can be found starting on page 72.

Double-skinned steel sectional doors

SPU F42/SPU 67 Thermo



- Robust PU-foamed steel sections
- Optionally with Stucco 1
 or Micrograin 2 surface finish
- Optional section window or aluminium glazing frame
- Good thermal insulation with SPU F42
- Optimum thermal insulation with SPU 67 Thermo with sections with thermal break



Door type	SPU F42	SPU 67 Thermo

	Without wicket door	With wicket door	Without wicket door	With wicket door
Door size				
Max. width (mm)	8000	7000	10000	7000
Max. height (mm)	7500	7500	7500	7500
Construction				
Depth (mm)	42	42	67	67
Steel sections	•	•	•	•
Aluminium frame	0	0	0	0
With thermal break	-	_	•	•
Thermal insulation EN 13241, Appendix U-value in W/(m²·K) for a door surface of 5				
Closed sectional door	1,0	1,2	0,62	0,82
With ThermoFrame	0,94	1,2	0,51	0,75
Section	0,50	0,50	0,33	0,33

^{● =} As standard

 $[\]bigcirc$ = Optionally as glazing

⁻⁼ Not available

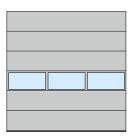
Example door versions

Door width up to 4500 mm

(Example 4500 × 4500 mm)



SPU F42 Type E section windows Uniform field division



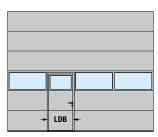
SPU F42, SPU 67 Thermo Aluminium glazing frame Uniform field division

Door width up to 5500 mm

(Example 5500 × 4500 mm)



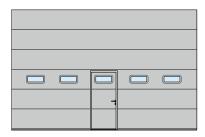
SPU F42, SPU 67 Thermo Type D section windows Wicket door on the left



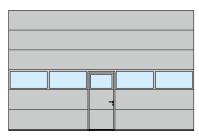
SPU F42, SPU 67 Thermo Aluminium glazing frame Wicket door on the left

Door width over 5500 mm

(Example 7000 × 4500 mm)



SPU F42, SPU 67 Thermo Type A section windows Wicket door arrangement in the centre



SPU F42, SPU 67 Thermo Aluminium glazing frame Wicket door arrangement in the centre

Clear passage width (LDB), wicket door SPU F42: 940 mm SPU 67 Thermo: 905 mm

Note

On request, the SPU F42 Plus is available in numerous door styles and surface finishes like Hörmann sectional garage doors.



Efficient thermal insulation

With a U-value of up to 0.51 W/(m²·K)

Well-insulated industrial sectional doors are essential in heated buildings to keep energy losses at a minimum. Hörmann industrial sectional doors with 67 mm sections with thermal break offer very effective insulation and thus save energy costs. You can additionally obtain up to 21% better thermal insulation with the optional ThermoFrame, which thermally separates the frame and brickwork while also sealing the door more effectively with double seals.

→ Further information can be found on page 59.



Glazed aluminium sectional doors with bottom section

APU F42, APU F42 Thermo, APU 67 Thermo



Matching appearance In both depths



DuratecExtremely scratch-resistant

- Extensive aluminium glazing frame
- Robust PU-foamed steel bottom section
- Good thermal insulation with APU F42
- Excellent thermal insulation with APU F42 Thermo with sections with thermal break
- Optimum thermal insulation with APU 67 Thermo with sections with thermal break



Door type	APU	APU F42		APU F42 Thermo		APU 67 Thermo	
	Without wicket door	With wicket door	Without wicket door	With wicket door	Without wicket door	With wicket door	
Door size							
Max. width (mm)	8000	7000	7000	7000	10000	7000	
Max. height (mm)	7500	7500	7500	7500	7500	7500	
Construction							
Depth (mm)	42	42	42	42	67	67	
Steel sections			•		•	•	
Aluminium frame	•	•	•	•	•	•	
With thermal break	_	-	•	•	•	•	
Thermal insulation EN 13241, Append U-value in W/(m²-K) for a door surface of Standard double pane		3,6	2,9	3,1	_	_	
With ThermoFrame	3,3	3,6	2,8	3,1		-	
Standard triple pane	-	-	-	-	2,1	2,3	
With ThermoFrame		-			2,0	2,2	
Optional double climate pane, single-pane safety glass	2,5	2,7	2,0	2,2	1,6	1,8	
With ThermoFrame	2,4	2,6	1,9	2,1	1,5	1,7	

^{● =} As standard

^{■ =} As floor section as standard

⁻⁼ Not available

Example door versions

Door width up to 4500 mm

(Example 4500 × 4500 mm)

52 →	+	

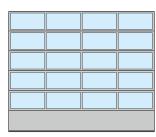
APU F42, APU F42 Thermo, APU 67 Thermo Uniform field division

	1025	
52 -	+	
+	LDB	•

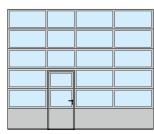
APU F42, APU F42 Thermo, APU 67 Thermo Wicket door arrangement in the centre

Door width up to 5500 mm

(Example 5500 × 4500 mm)



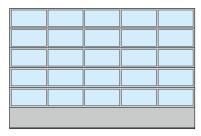
APU F42, APU F42 Thermo, APU 67 Thermo Uniform field division



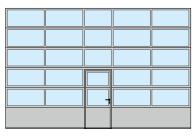
APU F42, APU F42 Thermo, APU 67 Thermo Wicket door on the left

Door width over 5500 mm

(Example 7000 × 4500 mm)



APU F42, APU F42 Thermo, APU 67 Thermo Uniform field division



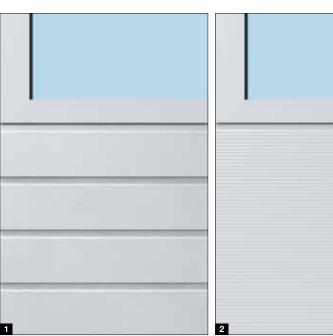
APU F42, APU F42 Thermo, APU 67 Thermo Wicket door arrangement in the centre

On request, uniform field division is also possible with wicket door. The field division of the wicket door arrangement is also available for sectional doors without wicket door. For modernisation or when the matching appearance of the existing sectional doors must be ensured, the APU F42 and APU F42 Thermo are also available with 91 mm wide rails.

Clear passage width (LDB), wicket door APU F42, APU F42 Thermo: 940 mm APU 67 Thermo: 905 mm

Especially easy to service and repair

Thanks to uniform PU foaming, the 750 mm high bottom section is especially robust, available in either Stucco or Micrograin 2 surface finishes. In case of extensive damage, it can be exchanged easily and inexpensively.





Glazed aluminium sectional doors

ALR F42, ALR F42 Thermo, ALR 67 Thermo

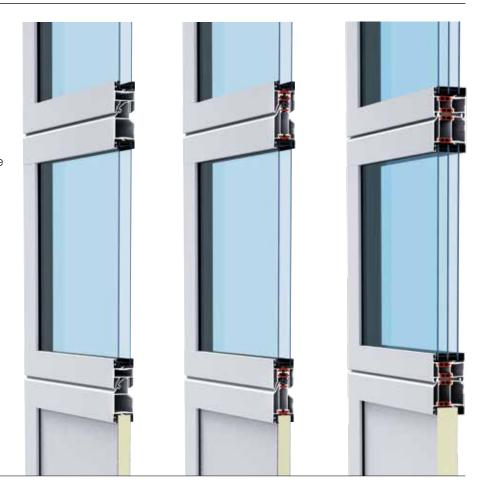


Matching appearance In both depths



DuratecExtremely scratch-resistant

- Extensive aluminium glazing frame
- Good thermal insulation with ALR F42
- Excellent thermal insulation with ALR F42 Thermo with sections with thermal break
- Optimum thermal insulation with ALR 67 Thermo with sections with thermal break



Door type	ALF	ALR F42		ALR F42 Thermo		ALR 67 Thermo	
	Without wicket door	With wicket door	Without wicket door	With wicket door	Without wicket door	With wicket door	
Door size							
Max. width (mm)	8000	7000	7000	7000	10000	7000	
Max. height (mm)	7500	7500	7500	7500	7500	7500	
Construction							
Depth (mm)	42	42	42	42	67	67	
Steel sections	-	-	_	-	-	-	
Aluminium frame	•	•	•	•	•	•	
With thermal break	_	_	•	•	•	•	
Thermal insulation EN 13241, Append U-value in W/(m²-K) for a door surface of							
Standard double pane	3,6	3,8	3,0	3,2	-	-	
With ThermoFrame	3,6	3,8	3,0	3,2	-	-	
Standard triple pane	_	-	_	_	2,2	2,4	
With ThermoFrame		-	_	-	2,1	2,3	
Optional double climate pane, single-pane safety glass	2,7	2,9	2,1	2,3	1,7	1,9	
With ThermoFrame	2,6	2,8	2,0	2,2	1,6	1,8	

^{● =} As standard

⁻⁼ Not available

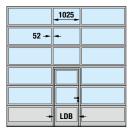
Example door versions

Door width up to 4500 mm

(Example 4500 × 4500 mm)



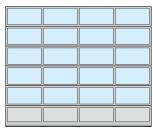
ALR F42, ALR F42 Thermo, ALR 67 Thermo Uniform field division



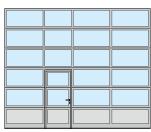
ALR F42, ALR F42 Thermo, ALR 67 Thermo Wicket door arrangement in the centre

Door width up to 5500 mm

(Example 5500 × 4500 mm)



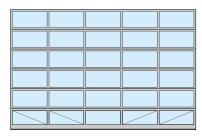
ALR F42, ALR F42 Thermo, ALR 67 Thermo Uniform field division



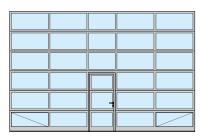
ALR F42, ALR F42 Thermo, ALR 67 Thermo Wicket door on the left

Door width over 5500 mm

(Example 7000 × 4500 mm)



ALR F42, ALR F42 Thermo, ALR 67 Thermo Uniform field division, fully glazed



ALR F42, ALR F42 Thermo, ALR 67 Thermo Wicket door arrangement in the centre, fully glazed

Clear passage width (LDB), wicket door ALR F42, ALR F42 Thermo: 940 mm ALR 67 Thermo: 905 mm

Note

On request, uniform field division is also possible with wicket door. The field division of the wicket door arrangement is also available for doors without wicket door. For modernisation or when the matching appearance of the existing sectional doors must be ensured, the ALR F42/ALR F42 Thermo are also available with 91 mm wide rails. Of course, individual arrangements of the glass and panel infills or full glazing are also possible.

For better stability, the lower window sections on the inside of doors with full glazing (from 5510 mm door width) and doors with real glass and wicket door (from 4510 mm door width) are equipped with diagonal structural cross struts.

Optional infills

We deliver the bottom door section as standard with PU sandwich infill, both sides Stucco-textured. Optionally, the door is available fully glazed for maximum transparency without surcharge. Additional glazing variants, sandwich infills and ventilation grilles are available depending on your requirements.

→ Further information can be found starting on page 72.



Aluminium sectional doors with extensive glazing

ALR F42 Glazing, ALR 67 Thermo Glazing



Matching appearance In both depths



Real glass

- Display window door for an unimpeded view into showrooms
- Continuous window sections, without vertical rails up to 3330 mm door width
- Window sections with exact, uniform division
- Good thermal insulation with ALR F42 Glazing
- Optimum thermal insulation with ALR 67 Thermo with aluminium glazing frame with thermal break



Door type	ALR F42 Glazing	ALR F67 Thermo Glazing
Door size		
Max. width (mm)	5500	5500
Max. height (mm)	4000	4000
Construction		
Depth (mm)	42	67
Steel sections	_	-
Aluminium frame	•	•
With thermal break	-	•
Thermal insulation EN 13241, Appendix B EN 12428 U-value in W/(m²-K) for a door surface of 5000 × 5000 m	ım	
Standard single pane, laminated safety glass	6,1	-
Standard double pane, single-pane safety glass	-	3,0
With ThermoFrame	-	2,9
Optional double climate pane, single-pane safety glass	2,7	1,8

^{● =} As standard

⁻⁼ Not available

Example door versions

Door width up to 3330 mm

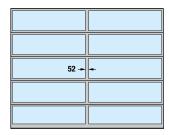
(Example 3300 × 3500 mm)



ALR F42 Glazing, ALR 67 Thermo Glazing

Door width over 3330 mm

(Example 4500 × 3500 mm)



ALR F42 Glazing, ALR 67 Thermo Glazing with vertical rail

Note

For modernisation or when the matching appearance of the existing sectional doors must be ensured, the ALR F42 Glazing Thermo are also available with 91 mm wide rails.



Efficient thermal insulation

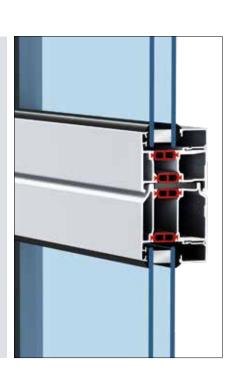
With a U-value of up to 1.7 $W/(m^2 \cdot K)$

Heated sales areas

The ALR 67 Thermo Glazing has a thermal break and offers optimal thermal insulation with maximum transparency.

Optional climatic glazing and ThermoFrame decrease the thermal insulation value to a maximum of 1.7 $W/(m^2 \cdot K)$. This helps you save valuable energy.

→ Further information can be found starting on page 72.

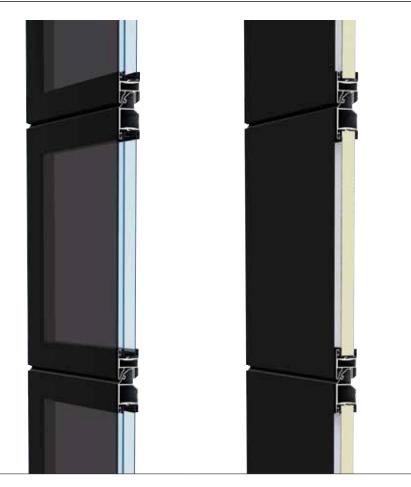


Aluminium sectional doors for sophisticated architecture

ALR F42 Vitraplan, ALR F42 Vitraplan AT



- Extremely elegant overall appearance with surface-mounted, flush-fitting glazing or facade panels
- Concealed frame profiles in matching colour
- Eye-catching element on modern industrial structures and prestigious private buildings
- Grey tinted glazing for an engaging mix of reflection and transparency with ALR F42 Vitraplan
- NEW. Modern facade panels for a harmonious appearance with ALR F42 Vitraplan AT



Door type	ALR F42 Vitraplan	ALR F42 Vitraplan AT .NEW
Door size		
Max. width (mm)	6000	6000
Max. height (mm)	7500	7500
Construction		
Depth (mm)	42	42
Steel sections	-	-
Aluminium frame	•	•
With thermal break	-	-
Thermal insulation EN 13241, Appendix U-value in W/(m²-K) for a door surface of 5	B EN 12428	
	000 × 5000 mm	
Standard double pane	000 × 5000 mm 3,2	
Standard double pane	000 × 5000 mm	
Standard double pane With ThermoFrame Optional triple pane	000 × 5000 mm 3,2	
Standard double pane With ThermoFrame	3,2 3,2 3,2	
Standard double pane With ThermoFrame Optional triple pane	000 × 5000 mm 3,2 3,2 3,2 3,1	2,6

^{● =} As standard

⁻⁼ Not available

Example door versions

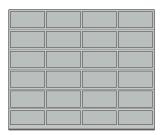
Door width up to 4500 mm (Example 4500×4500 mm)

91 + -

ALR F42 Vitraplan Uniform field division

Door width over 4500 mm

(Example 5500 × 4500 mm)



ALR F42 Vitraplan Uniform field division

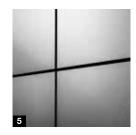
Glazing / facade panels

ALUCOBOND®









TRESPA









Vitraplan glazing

1 Grey tinted

ALUCOBOND® facade panels

- 2 naturAL Reflect 405*
- 3 Solid Colours Pure White 10 / 100
- 4 Solid Colours Black 326
- 5 naturAL Brushed 400

For further information, see www.alucobond.com

TRESPA® METEON® facade panels

- 6 Italian Walnut NW08 Matt
 - Paris Silver LM 5101 Diffuse
- 8 Anthracite Grey A25.8.1 Satin
- 9 Natural Slate NA18 Matt

For further information, see www.trespa.com

^{*} The ALUCOBOND® panel naturAL Reflect 405 is high-gloss aluminium with a transparent protective coating. The metallic gloss gives objects an elegant and lively appearance. Naturally, reflections may occur, which must be taken into account in the planning on site. As an alternative, the surface finish naturAL Brushed 400 can be selected, which prevents possible disturbing reflections due to its surface texture.

Aluminium sectional doors for on-site cladding

ALR F42

- Frame profiles with PU sandwich infill
- · With horizontal profiles for cladding fitting
- · For flush-fitting cladding made of timber, metal and many other materials



Depending on the weight of the on-site cladding

ALR F42 Door type

Max. Width (IIIII)	7000	
Max. height (mm)	4500	
Construction		
Depth (mm)	42	
Steel sections	-	
Aluminium frame	•	
With thermal break	_	

Thermal insulation EN 13241, Appendix B EN 12428

U-value in W/(m^2 -K) for a door surface of 5000×5000 mm

● = As standard

Door size

ALR F42

The facade cladding door base consists of frame profiles with PU sandwich infill. The horizontal profiles are cladded. Optionally, we provide vertical fitting profiles to which the facade material can be attached simply and unseen. You can design the on-site, flushfitting facade cladding to suit your requirements with timber, metal, ceramics, plastic and many other materials. Please observe the maximum weight per unit area of the on-site cladding.

⁻⁼ Not available

Excerpt from the planning aid

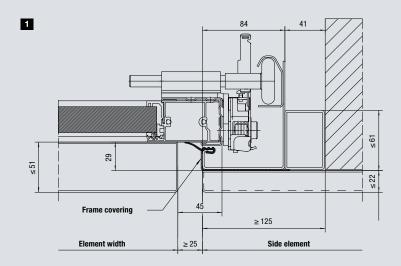
Standard fitting in the opening

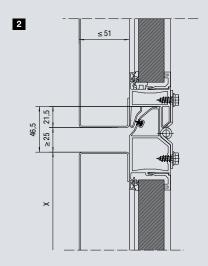
Standard version

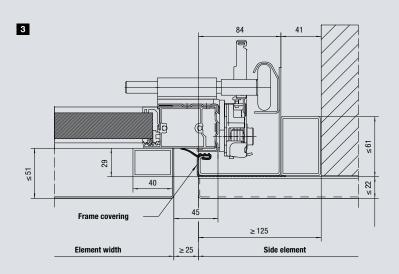
- Horizontal view door frame connection to the facade wall
- Vertical view of the section transitions

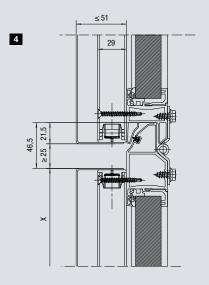
Version with fitting profiles

- Horizontal view door frame connection to the facade wall
- Vertical view of the section transitions









Logistics doors

SPU F42 Parcel / APU F42 Parcel

- Robust PU-foamed steel sections with good thermal insulation in SPU F42 Parcel
- Combinations of extensive aluminium glazing frame and robust PU-foamed steel bottom sections in APU F42 Parcel



Door type	SPU F42 Parcel	APU F42 Parcel	
Door size incl. bottom section	-		
Width LZ (mm)	1500 – 3000	1500 – 3000	
Height RM (mm)	3125 – 4250	3125 – 4250	
Bottom section height SLH (mm)	500 – 1450	500 – 1450	
Opening height (mm)	2575 – 3700	2575 – 3700	
Construction			
Depth (mm)	42	42	
Steel sections	•	•	
Aluminium frame	0	•	
With thermal break	-	-	
Closed sectional door	1,0	-	
Standard double pane	<u>-</u>	3,4	
Track application versions	HP track application, VP track application		
Door operation	Operator WA 300 S4 (press-and-hold control) and push button DTH-R		
Options	Shootbolt for use as night door rotary latch		

^{● =} As standard

^{■ =} Bottom floor section

 $[\]bigcirc$ = Optional glazing element

⁻⁼ Not available

SPU F42 Parcel / APU F42 Parcel

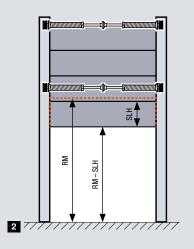
Divisible industrial doors

In parcel service logistics centres or warehouses, different loading sites were previously required to load and unload lorries or swap containers and delivery vans at various other loading sites. The loading surface heights for vans are, at 55 cm, much lower than those for lorries and swap containers, which are approx. 1.35 m. With the industrial door Parcel, both types of vehicles can be loaded and unloaded at one loading site. For loading lorries or swap containers, the bottom section is disconnected from the door and only the top part of the door is opened 1. To load vans, the bottom section (SLH) is coupled with the door and remains in the top part of the opening when the door is open 2.

Β̈́ 1 7

Advantages through the dual use of the loading site:

- · Reduced costs for e.g. Conveyor belts, loading sites
- Lower manpower costs due to fewer loading sites
- · More efficient loading site utilisation through dual use





Variable door opening

Both door segments are counterbalanced by separate springs and can therefore be moved separately. The power limit of the WA 300 S4 effectively protects against damage from possible obstructions.



Safe and convenient operation

The door is operated using a DTH-R push button (press-and-hold operation). Glazing in the door allows you to check whether it is safe to open.



Easy decoupling

Releasing the espagnolette lock decouples the lower segment.

55

Innovative construction

For long-lasting door function







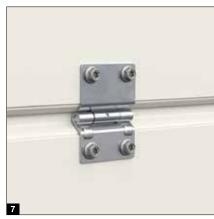






- ONLY FROM HÖRMANN. Large double radii 1 for quiet, low-wear door travel
- ONLY FROM HÖRMANN. Twin rollers 2 on the top section for especially quiet door closing
- Adjustable plastic rollers with ball-bearing for precise door travel
- Optional 2-component rollers to reduce travel noises by up to 5 dB(A)
- ONLY FROM HÖRMANN. Optional plastic frame shoe 4 prevents rust as a result of waterlogging on the door frame
- Double bottom seal with double chamber to improve bottom and side closure
- Upper frame end with connecting bracket ⁵ for easy fitting of the entire spring shaft
- Secure connection as one piece from the spring shaft to the cable drum
 for reliable functioning
- Optimised centre hinges made of galvanized steel 7
 to connect the individual door sections
- Fitting-friendly roller brackets 3 and roller holders on robust end caps ensure reliable connection of the rollers to the track.







Certified security

For secure door function





Hörmann industrial sectional doors comply with the safety requirements of European standard 13241. Have this confirmed by other manufacturers!

- · Secure door guide prevents the rollers from jumping out of the track 1
- · Easy door opening and closing thanks to optimal counterbalance
- Catch safety device (depending on equipment) provides protection in case a cable or spring breaks **.EUROPEAN PATENT**
- Spring safety device (depending on equipment) stops the torsion spring shaft if a spring breaks and securely holds the door in position .EUROPEAN PATENT
- Finger trap protection on doors with a depth of 42 mm eliminates trap points on the inside and outside
- Cable guide on the inside stops the cable jamming
- Side trap guard thanks to side frames closed completely from top to bottom
- · Closing edge safety device in operators WA 500, WA 500 FU / ITO 500 FU as well as automatic safety cut-out in operators WA 300 S4 and SupraMatic HT stop the door in the event of danger

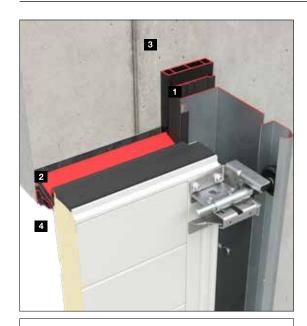






Optional energy-saving equipment

For efficient thermal insulation and sealing







ThermoFrame

- Thermal break between the frame and brickwork
- Additional seals for improved tightness
- Easy to fit together with the door frame
- Optimum corrosion protection of the side frame
- Up to 21% improved thermal insulation2)



up to class 4 low air permeability 2)

Spacer profile with additional lintel counter seal .NEW

- Spacer profile increases the distance to the outer wall, compensating for any deflection of the section caused by direct sunlight on dark colours
- Lintel 2 and additional lintel counter seal 4 overlap, compensating for any deflection of the section to minimise energy losses in winter

Increased air tightness to reduce energy losses .NEW

- Improved standard bottom seal with additional chambers seals effectively to the side seal
- Optional infills 5 seal the ribbing and transitions in the sections
- Optional corner seals 6 increase the tightness at the transition between door frame and lintel

 $^{^{1)}}$ SPU67 Thermo without glazing with optional ThermoFrame for a door surface of $3000\times3000\,\text{mm}$

²⁾ SPU67 Thermo without glazing with optional ThermoFrame and the "Increased air permeability" set

Fitting advantages

For simple, precise fitting

- Precisely fitting connection of track and radius through transition sleeves 1
- · Faster fitting thanks to fewer components and press-fitted bolts 2
- · Ceiling anchor with perforation in two rows for simple fitting
- · Suspension material as L-bracket with continuous perforation (can be shortened) for easy fitting
- · Fewer suspension points with optional C-rail 3
- **NEW.** Diagonal fixing 4 of the top track without ceiling suspension
- Recess at the frame shoe 5 facilitates work if the floor is not yet finished
- · Flexible shaft coupling to compensate for minor deviations in alignment
- · Bolted tracks for simple, costeffective exchange in the event of collision damage in the frame area
- NEW. Connection bracket for shaft holder 6 for easy torsion spring fitting by just one person
- **NEW.** Spring tensioner **1** for easy tensioning of the torsion spring with the aid of an electric screwdriver





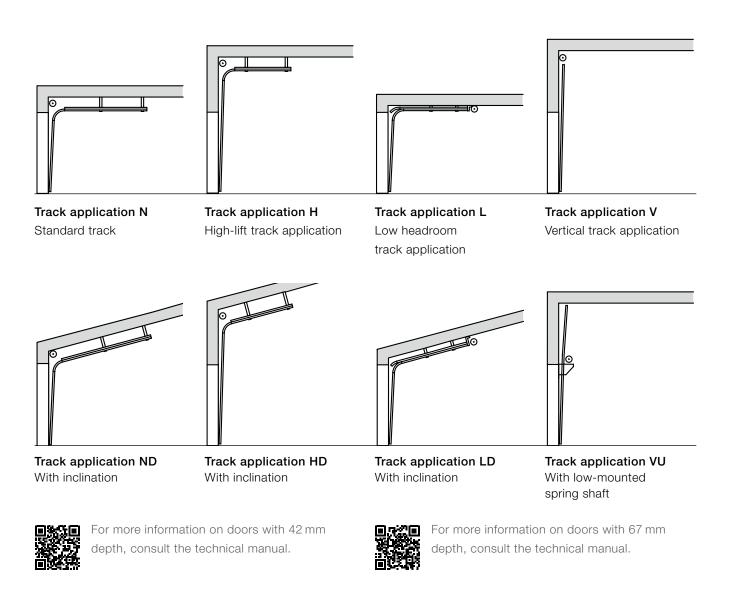












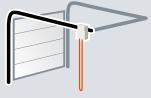


Low headroom track application

Operator and chain are directly on the door. An unsightly and potentially hazardous chain no longer dangles down. It pays to compare!



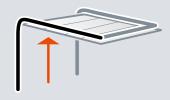
Hörmann's optimal arrangement



Competitors' disruptive arrangement

Full passage height

Under certain circumstances, the low headroom track application enables the full passage height with only 200 mm required headroom.



Movable centre support .NEW

For large openings of up to 30 m width

Economical combination

This door combination allows for particularly large openings to be closed conveniently and economically by coupling two or three industrial sectional doors. This door combination is especially economical during transport, fitting and service.

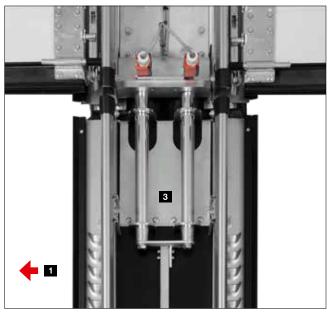
Variable door openings

For complete opening, the doors are opened and the centre support is then unlocked and pushed to the side. The individual doors can also be opened independently of each other so that the opening can also be done in segments.















Details

- Can be quickly and easily moved sideways thanks to a low-friction track behind the lintel
- No components swivelling inwards or outwards
- Narrow centre support made of aluminium with a width of only 375 mm
- Espagnolette lock 2 with function monitoring prevents door travel when the centre support is unlocked
- Robust bolts at the lintel and floor for secure closing and reliable transmission of wind loads

Exterior view

Aluminium as standard with line design



















Overhead door closer

As standard, wicket doors are supplied with slide rail door closer including hold-open device 1.

An integrated door closer with hold-open device is optionally available for doors with 42 mm depth for optimum protection and the best appearance.

Optional multiple-point locking 3

The wicket door is locked over the entire door height with one bolt and hook bolt per door section. The advantage: better stability and improved break-in resistance.

Sturdy mechanical hold-open device 4

The hold-open device prevents door leaf dropping and warping.

Flat wicket door frame 5

The all-round frame consists of a flat aluminium profile. This way, the wicket door is harmoniously integrated into the door.

Concealed hinges 6

For a uniform door appearance, the wicket doors are equipped with concealed hinges as standard.

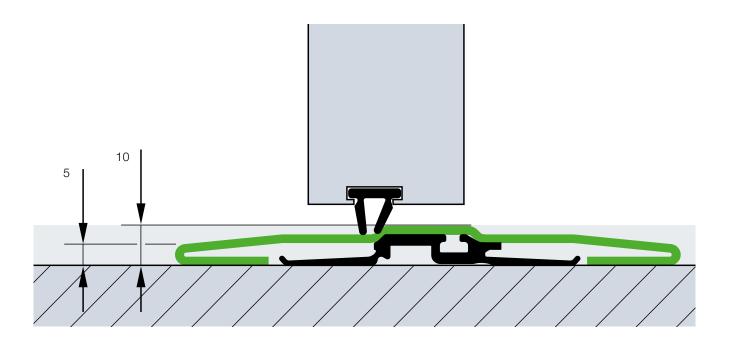
Finger trap protection (outside and inside)* 7

The unique shape of the door sections and the wicket door frame eliminate trap points when the door opens and closes.

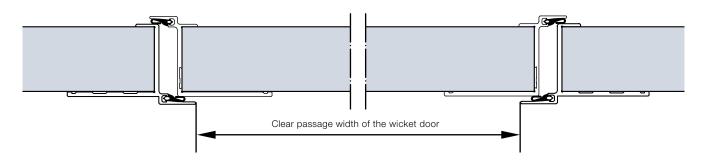
Optimally sealed 8

The adjustable threshold profile with flexible seal compensates for unevenness in the floor. Adjustable double seals located in the transitions from the bottom edge of the door to the floor and from the door leaf to the threshold rail optimally seal the bottom edge of the door and the wicket door opening.

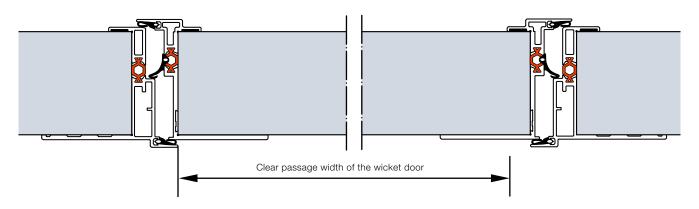
^{*} Not for wicket door with 67 mm depth



Wicket door construction for sectional doors in 42 mm depth



Wicket door construction with thermal break for sectional doors in 67 mm depth



Trip-free passage

The stainless steel threshold rail is 10 mm high at the centre and 5 mm at the edges. We provide a reinforced threshold rail of approx. 13 mm for doors from 5510 mm width or for doors wicket door and real glass from 4510 mm width.

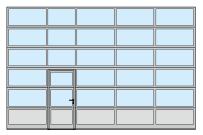
940 / 905 mm clear passage width as standard

Under certain circumstances, the wicket door with trip-free threshold, with its clear passage width of 940 mm (depth 42 mm) or 905 mm (depth 67 mm), fulfils the requirements for an escape door and for barrier-free construction.

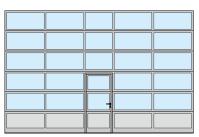
Freely selectable position

The wicket door can be positioned to the left, right or at the centre (except for the two outermost fields). The window sections above the wicket door have a clear view of 1025 mm as standard. All other fields of the door have the same width.

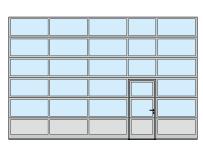
Example door versions



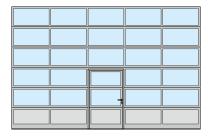
Wicket door on the left



Wicket door in the centre



Wicket door on the right



Wicket door in the centre with uniform field division

*

Escape door

Under certain circumstances, Hörmann doors with wicket door and trip-free threshold fulfil the requirements of an escape door (for doors up to 5500 mm width or for doors with real glass up to 4510 mm width).



Unobstructed entrance

Under certain conditions,
Hörmann sectional doors
with wicket door and
trip-free threshold fulfil the
requirements for accessibility
in accordance with
DIN EN 18040-1 and are
certified by the ift Rosenheim.

Note

On request, doors with wicket door are also available with uniform field division and the wicket doors can be supplied in individual sizes or matching existing doors, even with threshold rails. We recommend the wicket door with threshold rail for inclining surfaces in the opening area.

Side doors

Matching the door

Side door NT 60 1

- 60 mm aluminium frame construction
- As standard with all-round seals made of long-lasting, weatherresistant EPDM
- Infill variants same as for sectional doors with 42 mm depth
- Infill fixed by glazing beads

- 1 Exterior view
- 2 Interior view with synthetic glazing
- 3 Viewed from inside with sections
- 4 Lever handle set as standard









Side door with thermal break NT 80 Thermo

- 80 mm aluminium frame construction with thermal break
- As standard with all-round seals made of long-lasting, weatherresistant EPDM
- Infill variants with thermal break same as for doors with 42 mm and 67 mm depth
- Infill fixed by glazing beads



6 Interior view with triple synthetic glazing

7 Lever handle set as standard

Thermal break between door leaf, frame and threshold rail







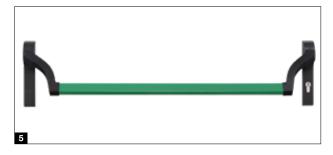












Fittings

- Mortice lock with profile cylinder
- Offset lever handle set, with oval rose escutcheons made of black plastic 1
- On request also available as lever / knob handle sets
- Optionally available in natural finish cast aluminium ², polished stainless steel ³
 or brushed stainless steel ⁴

Optional equipment

- Tested break-in-resistant RC2 security equipment according to DIN EN 1627
- Stainless steel push bar 38-2, brushed, 1000 mm high, exterior, additionally with stainless steel lever handle set, interior
- Overhead door closer with hold-open device
- Push bar ⁵ in black/green or stainless steel, for escape door, inside (anti-panic lock required)
- Multiple-point locking also with anti-panic functions B, D, E



MZ Thermo65 multi-purpose door

Steel side doors with thermal break

- 65 mm thick door leaf with thermal break and PU rigid foam infill
- Aluminium block frame with thermal break and threshold with thermal break
- High thermal insulation with a U-value = 0.82 W/(m²·K)
- Optionally available with RC2 security features as KSI Thermo46 with 46 mm thick door leaf

Individual colour schemes

For greater design freedom

High-quality primer coating

- 11 preferred colours as well as RAL and NCS, in many metallic colours as well as acc. to British Standard ¹⁾
- Coil coating procedure for double-skinned sections in preferred colours, Grey white RAL 9002 on the inside
- 2C-PUR coating on the outside or outside and inside for all other colours
- Door leaf reinforcements and end caps in Grey white, RAL 9002, as standard²⁾

Optional colour coatings

- Wicket door frame profiles in anodised aluminium E6 / C0 on the outside, inside
- · Leaf frame and door frame of side doors
- · Aluminium glazing frame and glazing beads
- External frame of compound glazings type A (die-cast frame) and type D (plastic frame), internal frame black as standard

Preferred colours



Doors with double-skinned steel sections in the preferred colours are supplied in Grey white, RAL 9002, on the inside 1. The frames for compound glazing are black as standard on the interior of the door.

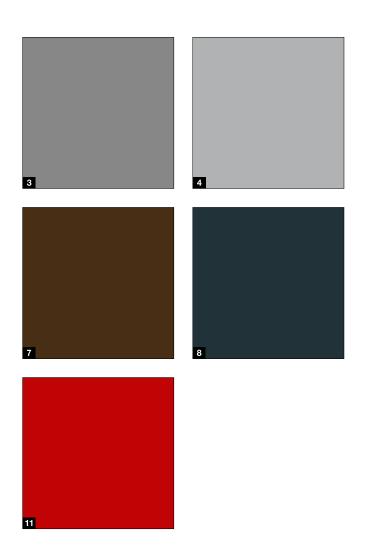
Door leaf reinforcements and the end caps of the door sections on the inside of coloured doors are supplied in Grey white, RAL 9002, as standard ²⁾. For doors with wicket door, the frame of the wicket door on the inside consists of aluminium profiles in E6 / C0 2.

Note

Dark colours should not be used for double-skinned steel doors and for doors with thermal break that are exposed to the sun, as possible section deflection may restrict the door's function (bi-metal effect). The colours shown are subject to the limitations of the printing process and cannot be regarded as binding. Contact your Hörmann specialist dealer for advice regarding coloured doors. All colours based on RAL.

With the exception of pearl-effect and fluorescent colours, slight colour variations are permissible

²⁾ Excluding ALR F42 Vitraplan and Vitraplan AT

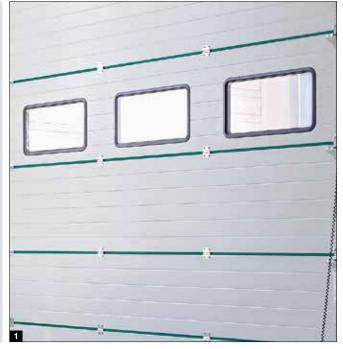




At no surcharge

Preferred colours for double-skinned steel sections in all depths

- 1 RAL 9016 Traffic white
- 2 RAL 9010 Pure white
- 3 RAL 9007 Grey aluminium
- 4 RAL 9006 White aluminium
- 5 RAL 9005 Jet black
- 6 RAL 9002 Grey white
- 7 RAL 8028 Terra brown
- 8 RAL 7016 Anthracite grey
- 9 RAL 6005 Moss green
- 10 RAL 5010 Gentian blue
- 11 RAL 3000 Flame red





Glazings and infills

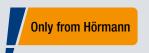
For more light and better ventilation

				1	1			1	1				
● = Possible	Duratec glazing	SPU F42	SPU 67 Thermo	APU F42	APU F42 Thermo	APU 67 Thermo	ALR F42	ALR F42 Thermo	ALR 67 Thermo	ALR F42 Glazing	ALR F67 Thermo Glazing	ALR F42 Vitraplan	ALR F42 Vitraplan AT
Aluminium glazing frame													
Synthetic panes													
Clear single pane Single pane, crystal structure	•	•		•			•						
Clear double pane Double pane, crystal structure Double pane, tinted in grey or white (opal)	•	•		•	•		•	•				•	
Clear triple pane Triple pane, crystal structure Triple pane, tinted in grey or white (opal)	•	•	•	•	•	•	•	•	•			•	
Clear quadruple pane Quadruple pane, crystal structure Quadruple pane, tinted in grey or white (opal)	•		•			•			•				
Polycarbonate panes													
Clear single pane	•	•		•			•						
Clear double pane	•	•		•	•		•	•				•	
Clear triple pane	•		•			•			•				
Clear quadruple pane	•		•			•			•				
Real glass panes													
Clear single pane, laminated safety glass		•		•			•			•			
Clear double pane, single-pane safety glass		•	•	•	•	•	•	•	•	•	•		
Clear double climate pane, single-pane safety glass		•	•	•	•	•	•	•	•	•	•		
Infills													
Multiple-moulded pane		•		•	•		•	•					
Stainless steel expanded mesh /entilation cross section: 54% of the infill surface		•		•			•						
Perforated stainless steel sheet Ventilation cross section: 40% of the infill surface		•		•			•						
PU infill, aluminium sheet cladding, anodised on both sides, smooth				•	•	•	•	•	•				•
PU infill, aluminium sheet cladding, Stucco-textured on both sides				•	•	•	•	•	•				•

A permanently clear view

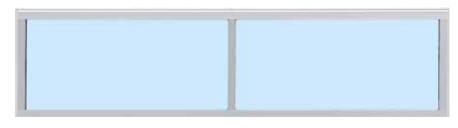
The Duratec glazing is available as standard for all sectional doors with clear synthetic glazing, at no surcharge.

With Duratec synthetic glazing, Hörmann sectional doors retain their clear view permanently, even after multiple cleans and heavy use, unlike with standard synthetic glazings.





Aluminium glazing frame









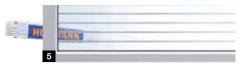














- 1 Polycarbonate double pane, clear
- 2 Synthetic double pane, clear
- 3 Synthetic double pane, white tinted (opal / clear)
- 4 Synthetic double pane, crystal structure
- 5 Multiple-moulded pane

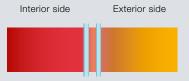
- 6 Synthetic double pane, grey tinted
- 7 PU sandwich infill, smooth
- 8 PU sandwich infill, Stucco
- 9 Perforated stainless steel sheet
- 10 Stainless steel expanded mesh

Aluminium glazing frame

Thermal break	Without	With
Standard	Anodised in natural finish E6 / C0	Anodised in natural finish E6 / C0
Optional	Colour coating on the interior and exterior	Colour coating on the interior and exterior
Clear view	Depending on version	Depending on version
Rail extrusion	52 mm, optionally 91 mm*	52 mm, optionally 91 mm*

^{*} Only 42 mm depth

Excellent thermal insulation as standard



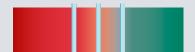
Conventional double pane, 16 mm from other manufacturers



Up to 20% improved thermal insulation* Duratec double pane, 26 mm (as standard)



Up to 35% improved thermal insulation* Duratec triple pane, 26 mm (optional)



Up to 40% improved thermal insulation* Duratec triple pane, 51 mm (optional)



Up to 55% improved thermal insulation* DURATEC quadruple pane, 51 mm (optional),

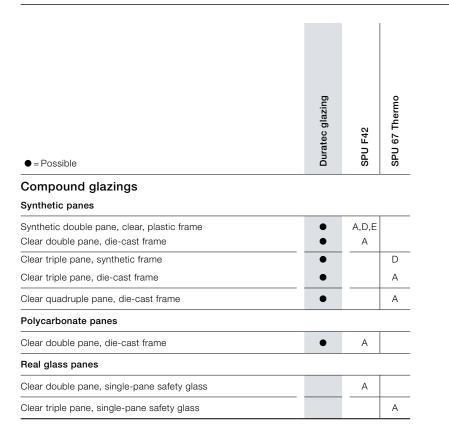


Up to 65% improved thermal insulation* Double climate pane, 26 mm (optional),

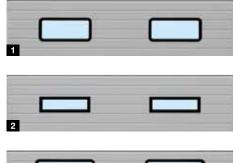
^{*} Compared with customary 16 mm double panes of other manufacturers

Glazing

For more light



Compound glazings





- 1 Compound glazings Type A
- 2 Compound glazings Type D
- 3 Compound glazings Type E

Compound glazings

	Type A	Type D	Type E
Standard	Plastic or die-cast frame in black	Plastic frame in black	Plastic frame in black
Optional	Die-cast frame with colour coating on the exterior	Colour coating on the exterior	
Clear view	635 × 245 mm	602 × 132 mm	725 × 370 mm
Rail extrusion			
Door section height	500, 625, 750 mm	500, 625, 750 mm	625, 750 mm

A permanently clear view

The Duratec glazing is available as standard for all sectional doors with clear synthetic glazing, at no surcharge.

With Duratec synthetic glazing, Hörmann sectional doors retain their clear view permanently, even after multiple cleans and heavy use, unlike with standard synthetic glazings.





Reliable security features

For protecting goods and machines





The locking hook of the anti-lift kit automatically latches if the door is forced upwards.





Anti-lift kit as standard



Optional RC2 security features

Tested and certified

Anti-lift kit as standard

It is also important for industrial doors to be reliably break-in-resistant to protect your goods and machines. Hörmann supplies all industrial sectional doors with a break-in-resistant anti-lift kit on both sides as standard. This mechanical protection reduces the risk of the door being pushed open by force, even in the event of a power failure. In sectional doors with rail-guided operators, self-locking gearbox ITO 500 FU or patented door locking in the operator boom (SupraMatic HT) makes forced opening even more difficult.

Optional RC2 security features

For especially high break-in resistance, industrial sectional doors SPU F42 and SPU 67 Thermo are optionally available in resistance class RC 2 – tested and certified in accordance with the new standard DIN/TS 18194. This certified security is also recommended by police information centres.

Securely locked as standard

Shootbolt with adjustable lock plate

This can be secured with an on-site padlock as a secure night lock.

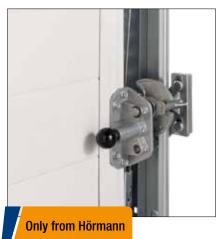
Rotary latch with locking bolts that can be adjusted horizontally and vertically

This door lock automatically locks itself through the latching disc.

Floor locking

This enables frequently used doors to be released by foot. The automatic latch audibly engages when closed.







Automatic locking .NEW

A bolt automatically locks the door* when the "CLOSE door" end-of-travel position is reached. Manual emergency release is still possible at any time. The locking is available in two variants: ETV1-HCP for the 545 and 560 controls and ETV1 for the 360, 445 R and 460 R controls and for third-party controls.





Locking operation from outside

Handle set

With the handle set, the door lock can be ergonomically operated from outside. From inside, the lock is operated via T-handle and securing split pin.

The profile cylinder can also be integrated into central locking systems.

Recessed handle set

Thanks to a flat design and flexible installation height, the handle set is ideal for loading ramp doors in logistics applications. You can operate two functions with the locking cylinder: permanently unlocked door and automatic re-locking.

All parts on the inside are protected by cladding.













Shootbolt

Rotary latch

Shootbolt

Rotary latch

Manual operation from inside

Hand pulley with rope or link steel chain



Chain hoist



Chain tensioner for easier operation



Shaft operator

WA 300 S4







WA 300 S4

230 volt 1-phase current

- Soft start and soft stop for gentle door travel
- Power limit in OPEN door / CLOSE door directions
- Max. opening speed 19 cm/s
- Max. 150 door cycles per day
- Max. 10 door cycles per hour
- Integrated control with push button DTH-R
- Optional external control 360 (prepared for traffic control)
- Small side room of only 200 mm
- No installations or wiring required on the door leaf 1)
- Standby approx. 1 W 2)
- max. door width 6000 mm
- max. door height 4500 mm

Fitting versions

Diagonal 1

Vertical 2

Safe "CLOSE door" travel at reduced speed

All OPEN door travel as well as CLOSE door travel above a 2500 mm opening height takes place at a speed of up to approx. 19 cm/s. With an opening height below 2500 mm, CLOSE door travel must be set to approx. 10 cm/s for safety reasons. This restriction does not apply to optional leading photocells or closing edge safety devices, meaning the door opens and closes at approx. 19 cm/s.

¹⁾ Except for doors with wicket door

²⁾ If no other electrical accessories are connected







Maintenance release directly on the operator

During the statutory annual inspection work, it is not necessary for the operator to be removed from the barrel. This saves you time and money. The maintenance release can be converted to a secured release at any time.

Combination control 420Si / 420Ti for operator and dock leveller

This easy-to-fit solution combines door operation with a standard dock leveller control in one housing. The control housing is prepared for retrofitting, e.g. with option relay HOR1-300 for OPEN door limit switch reporting for dock leveller release. Optionally available for operator WA 300 S4 with integrated control.

Battery HNA-300

With this emergency power supply in an external housing, you can bypass network power failures for up to 18 hours and max. 5 door cycles (dependent on the temperature and charge level). The emergency battery recharges itself during normal operation. Optionally available for operator WA 300 S4 with integrated control.



Soft start Soft stop

Quiet, gentle door travel sustainably increases the service life of the door system.



Easy to fit and service

Due to the standard power limit, doors without wicket door do not require any installations such as closing edge safety devices or cable slack switches on the door leaf. This reduces costs and the risk of repair and services.



Lower investments, lower consumption

The price of the WA 300 S4 operator costs approx. 30% less than with a 3-phase current operator. At the same time, daily power consumption is reduced by up to 50%.

Shaft operators

WA 500 .NEW / WA 500 FU





WA 500 .NEW

230 volt 1-phase current

- Max. opening speed 0.3 m/s
- max. 12 door cycles (open / close) per hour¹⁾
- max. door leaf weight 350 kg
- max. door width 4500 mm
- max. door height 4500 mm
- Can be combined with controls 545, 560
- Standby under 2 W²⁾

400 volt 3-phase current

- Max. opening speed 0.3 m/s
- max. 15 door cycles (open / close) per hour¹⁾
- Optionally with increased on time of max.
 20 door cycles (open / close) per hour¹⁾
- Exceptionally smooth running
- Long on-time
- · No restriction of door size
- Can be combined with controls 545, 560
- Standby under 2 W 2)

WA 500 FU

230 volt 1-phase current

- · Soft start and soft stop for gentle door travel
- Max. opening speed 1.0 m/s 3)
- max. 25 door cycles (open / close) per hour¹⁾
- Optionally with increased on time of max.
 30 door cycles (open / close) per hour¹⁾
- Constant door travel speed also with track applications H and V .European Patent
- Can be combined with controls 545, 560
- Standby under 2 W²⁾





electricity cost saving of approx. 80%²⁾

Based on max. ambient temperature of +40 °C, 5 door cycles (open / close) per hour are possible

Power consumption in energy-saving mode without any connected accessories: approx. 2 W/h

³⁾ With chain box and control 560







Standard maintenance release

During the statutory annual inspection and maintenance work, it is not necessary for the operator to be removed from the barrel. This saves you time and money. The maintenance release is pre-equipped for the secured release and can be retrofitted at any time without converting the release.

Optional emergency operation for maintenance release:

Emergency crank handle

The low-cost option is available in two versions, as a fixed crank handle or jointed emergency crank handle. Retrofitting with an emergency hand chain is possible.

Emergency hand chain

Through a combination of the emergency hand chain and the optional secured release, the door can be released or operated from the floor.



The frequency converter control takes stress off all the mechanical door elements, guaranteeing almost wearfree, quiet door travel.



Opening speed up to 1.0 m/s

Operator WA 500 FU with chain box and control 560

Shaft operator WA 500 FU impresses with an opening speed of up to 1 m/s, streamlining workflows, speeding up logistics processes and reducing thermal losses.



Adaptive door action check

The frequency converter operators WA 500 FU/ITO 500 FU with intelligent speed control feature a compact design with high torques over a large speed range. The adaptive door action check recognises uneven door travel going beyond typical fluctuations, for example caused by reduced spring tension. In this case, the operators automatically switch to a temporary protection mode, signalising to the user that the door system requires maintenance.



Shaft operators, direct drive operators

Fitting versions





Operator to flange WA 500, WA 500 FU (above)

The flange version is quick and easy to fit to the spring shaft and requires considerably less sideroom than the direct drive solutions from other manufacturers.

Operator with chain box WA 500, WA 500 FU (above)

We recommend operators with chain box for all types of doors up to a height of 7500 mm if there is only sideroom of up to 200 mm. For track applications L and LD, an operator with chain box is required. Due to the indirect transmission of forces, the door is subjected to minimum wear and friction.





Operator for central mounting WA 500 M, WA 500 M FU

This version is mounted centrally on the spring shaft; as a result, no additional sideroom is necessary. Please observe the minimum headroom. The operator includes a secured release as a standard feature and is suitable for virtually any track application.

Direct drive operators S75/S140

(not shown)

- Ready-to-fit direct drive operator with cable slack devices and integral catch safety device
- Power input: 3-phase current: 1.1 kW
- Protection category IP 65 (jet-water protected)
- Electronic absolute encoder (AWG) for determining the door position
- Microprocessor control in separate housing, with Open-Stop-Close membrane push button integrated in housing, miniature lock
- Self-monitoring closing edge safety device (SKS) via leading photocell VL1-LE including protective covers
- Connection cable with CEE plug in protection category IP 44 (splash-water protected)
- Fitting of the control immediately next to the sectional door, plug-in door leaf sensors
- Including lintel trap guard EZS 1
- Including radio transmission (omission of the coiled cable)
- Opening with impulse
- · Closing with impulse
- max. door leaf weight 700 kg (S75)
- max. door leaf weight 1080 kg (S140)
- max. door width 10000 mm
- max. door height 7500 mm
- Can be combined with controls 445 R, 460 R

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Chain drive operators with rail

ITO 500 FU, SupraMatic HT





ITO 500 FU

- Soft start and soft stop for gentle, quiet door travel
- Max. opening speed 0.5 m/s
- max. 25 door cycles (open / close) per hour*
- Adaptive door action check (for further information, see page 81)
- · No additional sideroom required
- Emergency release via Bowden cable on the slide carriage
- · Maintenance release as standard
- Emergency release from the outside possible
- Optionally secured release on inside / outside (ideal for use on facade doors)
- For standard track application (N, ND) and low headroom track application (L, LD)
- max. door height 4500 mm
- · For doors with wicket door on request
- * Based on max. ambient temperature of +40 °C, 5 door cycles are possible

SupraMatic HT operator

- · Soft start and soft stop for gentle, quiet door travel
- max. opening speed approx. 0.22 m/s
- max. 20 door cycles (open / close) per hour
- Pull and push force 1000 N (brief peak force 1200 N)
- Integrated control electronics including double
 7-segment display for simple adjustment of operator functions directly on the operator
- Optional external control 360 (for connecting traffic control, warning lights or additional prints)
- Patented door locking in the operator boom with emergency release from inside
- Connecting lead with CEE plug, second suspension
- For doors with a spring safety device
- Up to 6750 mm width (7000 mm on request), or 3000 mm height
- For standard track application (N) and low headroom track application (L)
- For doors with wicket door, ALR F42 Glazing and real glass on request
- Not for sectional doors with 67 mm depth



Releases and emergency operation

For convenient operation

Secured release on inside (optional)

 For the convenient release of the operator from the floor (European patent)

Secured release from outside ASE (optional) 2

- For release from the outside (required for buildings without a second entrance)
- · Lockable die-cast housing with profile half cylinder
- Dimensions: $83 \times 133 \times 50 \text{ mm} (W \times H \times D)$

Emergency operation / emergency actuation

- Recommended for doors over 3000 mm and fire station doors
- · Secured release is required
- Meets the requirements of fire brigade standard DIN 14092 (depth of 42 to 5000 mm or depth of 67 up to a door width of 5500 mm)

Push rod (optional) 3

• Not available for doors with wicket door

NEW. Hand pulley for emergency actuation of doors with operator (optional) 4

• Compactly fitted to the door frame



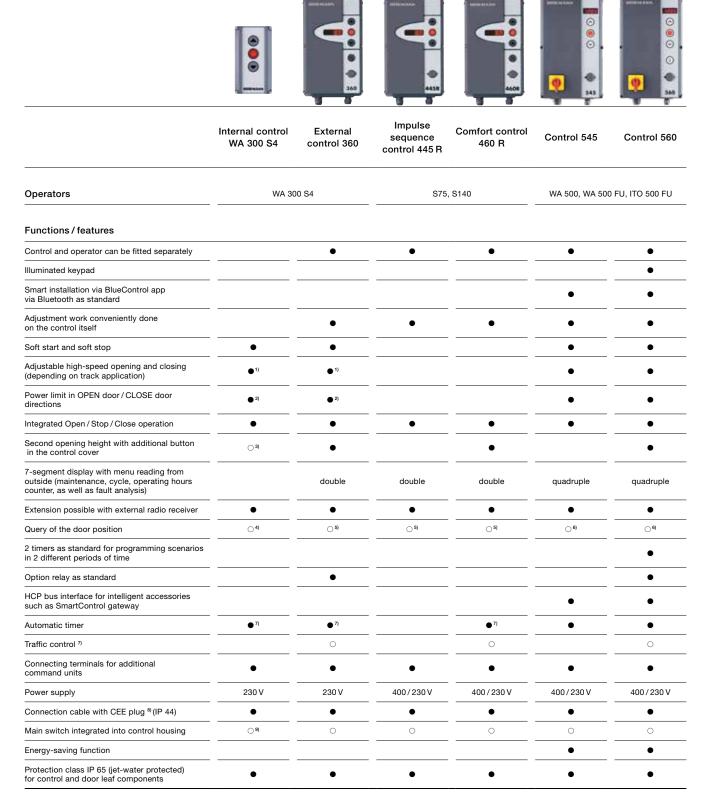






Controls

Compatible system solutions



 $\bigcirc\,\text{=}\,\text{With corresponding equipment possibly with additional control}$

- 1) In the CLOSE direction during operation without SKS/VL (during operation with SKS/VL, the door generally travels at high speed in the CLOSE direction)
- in accordance with EN 12453
 Possible in combination with UAP 1-300 and DTH-I or DTH-IM
- In combination with ESE BS, HS 5 BS
 In combination with HET-E2 24 BS, HS 5 BS and end-of-travel position feedback
- with ESE BS HCP or SmartControl gateway

 Only in combination with an activating kit for warning light and photocell or light grille or leading photocell VL1-LE/VL2-LE
- 8 For controls with integrated main switch the connection cable is omitted
 9 External main switch possible or through control panel 300 U with integrated main switch

Optional equipment

For controls



Profile half cylinder For all external controls



Main switch For all external controls



Radio transmission unit

To transfer the signals from the door leaf to the control via Bluetooth (no coiled cable), power supply via a powerful battery; connectable components: optosensors LE (low energy), leading photocell VL1-LE/VL2-LE, 8k2 strip, cable slack switch, wicket door contact, night latch contact

For all controls



Post STI 1

For fitting a maximum of 2 controls with additional housing, colour: White aluminium, RAL 9006, Dimensions: $200 \times 1660 \times 60$ mm (W × H × D)



UPS system

For bridging power failures of up to 2 hours and up to 4 door cycles, safety devices, warning lights etc., remain functional, LED status display, automatic battery test, surge filter, protection category: IP 20

Dimensions: $560 \times 235 \times 260 \text{ mm (W} \times \text{H} \times \text{D)}$,

For controls: 360, 545, 560



Battery unit

For control 545 / 560 incl. batteries; to buffer the time and date of the control if the mains voltage supply is interrupted for longer than the standard buffer of 60 hours

BlueControl

Smart set-up and service of operator control via the app

The BlueControl app makes initial start-up, service and maintenance of industrial doors with the 560 and 545 controls even easier and more convenient. Scan all door data via a QR code on the door and configure all settings in plain text. Existing configurations can be saved and transferred to similar door systems. In case of malfunction, the operator can send the malfunction report directly to the Technical Service for specific assistance via the BlueControl app. This saves you time and money.

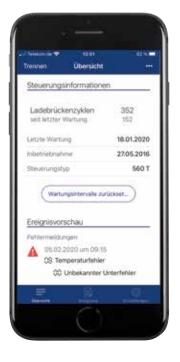
Advantages for the service technician

- · Clear settings in plain text
- Simple scanning of the door data via QR code
- Convenient saving and transferring of templates for programming identical systems
- · Simple reset of maintenance counter

Advantages for the operator

- · Clear app for free download and use
- On-site access via Bluetooth without internet connection
- · Fast overview of all menu settings
- Practical readout of events and errors with timestamp
- Time-saving forwarding of control data via e-mail







Download the app from the Apple App Store or the Google Play Store.







The latest generation of industrial sectional doors can also be integrated into digital service and remote maintenance concepts. With the SmartControl online portal, you get an all-round carefree package for the robust logistics processes at your door system. This minimises downtimes through the preventive replacement of wear parts.

Advantages at a glance

- 24/7 monitoring and technical door analysis, also remotely
- Online portal with all important door information,
 e.g. Error messages or door cycles
- No software installation required
- · Cost savings thanks to fewer and shorter service visits
- Fast troubleshooting thanks to online access to operator control
- Fewer and shorter downtimes due to early replacement of wearing parts
- Programming menu settings
- Push messages when configured events occur,
 e.g. max. door cycles for service visits
- Optimisation of service and maintenance scheduling through forward planning
- Connection of up to 2 controls of the series 500 possible
- Available for all Hörmann industrial doors with the 545 and 560 controls



For smoke extraction concepts with industrial doors

Smoke and heat extraction systems are an essential part of preventive fire protection and personal safety. In the event of fire, windows and transom lights in the facade and ceiling area are opened, allowing smoke and fumes to be discharged from the building. At the same time, fresh air is supplied from below via building openings such as inlet flaps in the building facade.

Thanks to the air inlet control AC72, door systems can also be integrated into smoke extraction concepts to securely supply fresh air. When the fire alarm system is triggered, the AC72 automatically transmits the impulse for door opening to the required opening height within 60 seconds. Additionally, the AC72 complies with the general requirements for smoke extraction systems, such as monitored battery operation in case of power failure for 72 hours. By integrating industrial doors into the smoke extraction concept of your building, you can reduce the investment and fitting costs of additional ventilation flaps. And because fewer doors need to be integrated into the facade, you improve the building's thermal insulation as well.

- Fulfils the requirements of FVLR Directive 13 (trade association for daylight and smoke ventilation):
 Downstream openings for smoke and heat exhaust ventilation systems
- Conforms to product standard for doors DIN EN 13241

Inlet air control based on DIN EN 12101-2/3 and DIN 18 232-9 (8)

- Automatic opening within 60 seconds
- Monitored battery operation in case of power failure for 72 hours
- Monitoring of the line from the RWA to the AC72

Protection goals for supporting self-rescue and third-party rescue

- Support for firefighting operations
- Prevention of uncontrolled smoke propagation
- · Delay or prevention of a flash-over
- Property protection
- · Containment of environmental damage

RWA smoke and heat extraction

- Smoke extraction in the event of fire thanks to a robust, low-smoke layer near the floor (by using targeted air supply)
- To ensure escape and rescue routes



Operator / control combinations for individual doors:

• Operator WA 300 R S4 with control 300 U

Operator / control combinations for doors with dock leveller:

• Operator WA 300 R S4 with control 420 Si / 420 Ti









Equipment

Closing edge safety device



Leading photocells VL1-LE

At no surcharge with operators WA 500, WA 500 FU, ITO 500 FU

Closing edge safety device with optosensors or with leading photocell

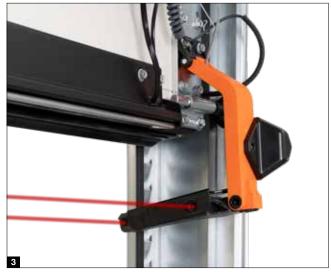
All power-driven Hörmann industrial sectional doors with WA 500, WA 500 FU, ITO 500 FU operators are equipped with a self-monitoring closing edge safety device with optosensors as standard. You can also select the leading photocell VL1-LE 1 for non-contact door monitoring of the closing edge at no surcharge. This solution offers you increased safety, faster door travel and lower inspection and maintenance costs.

Leading photocell

Using the leading photocells VL1-LE 2 and VL2-LE 3 means increasing the safety of Hörmann industrial sectional doors. The sensors monitor the bottom edge of the sectional door. Obstacles or persons are quickly recognised and the sectional door reverses before contact is made. Another benefit is the faster door travel speed.







Benefits of leading photocells

Increased safety

Thanks to the non-contact automatic safety cut-out, persons and obstacles are quickly recognised without door contact. The door stops before contact is made and immediately travels upwards. This virtually eliminates the risk of damage or injury.

Faster door travel

The leading photocell can close the door at a speed of up to 30 cm/s. This reduces your energy costs due to shortened door opening times.

Lower inspection and maintenance costs

Industrial doors with non-contact door monitoring approved for personal safety purposes do not need to have their closing force approved. This means you save the extra costs for the additional inspection in accordance with ASR A1.7.

Protection for people and materials

The crash protection at the sides prevents the swivel arm from being damaged when the door is closed (Figures on right).







Equipment

Light grille

Light grille

Light grilles recognise people and obstacles without making contact. This virtually eliminates the risk of damage or injury. A closing edge safety device with optosensors or additional photocells is not required.

Light grille HLG

- Light grille integrated in the frame <a>I
- · Good protection against damage and accidental readjustments
- · Fitting bracket for optimal fixing and alignment in the frame

Light grille HLG-V as advance protection

- Main closing edge safeguard up to a height of 2500 mm
- Fitting outside on the facade, in the reveal 2 or on the door frame 3
- Optionally integrated in key switch post STL 4 consisting of weather-resistant anodised aluminium

Light grille HLG for doors with wicket door

- Double light grille for doors with wicket door with trip-free threshold
- Main closing edge safeguard up to a height of 2500 mm
- Fitting on the door frame and on the outside in the reveal 5
- Radio transmission unit required (further information can be found on page 87)

Maximum safety

thanks to especially effective recognition of people and obstacles via angled beams

- Increased personal safety
 with especially close arrangement
 - of the sensors up to a height of 500 mm (above FFL)
- Reduced energy losses
 thanks to door closing at speeds

thanks to door closing at speeds of up to 1 m/s*

Easy retrofitting

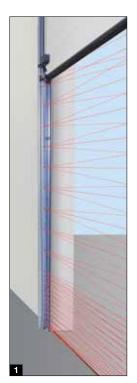
of existing doors with closing edge safety device with optosensors with the HLG light grille

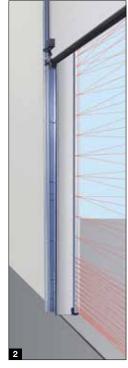
 Low inspection and maintenance costs

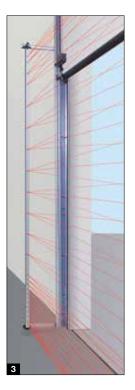
inspection of the closing force in accordance with ASR A1.7

not necessary

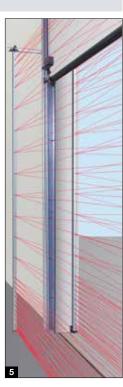
 * WA 500 FU and controls 560 up to a height of 2500 mm, depending on track applications and sizes













Reflection photocell RL 50 / RL 300

Photocell with transmitter / receiver module and reflector; photocell tested by control before every downward movement; connection via system cable (RL 50, length 2 m) / 2-wire cable (RL 300, length 10 m); dimensions: $45\times86\times39$ mm (W \times H \times D); protection category: IP 65; reflector range up to 8 m (standard): 30×60 mm (W \times H), reflector range up to 12 m (not shown): 80 mm diameter; optional weather protective cover (not shown), anti-fog coating



One-way photocell EL 51

Photocell with separate transmitter and receiver; photocell tested by control before every downward movement; connection via system cable; max. range 8 m; dimensions with fitting bracket: $45 \times 85 \times 31$ mm (W × H × D); protection category: IP 65; optional weather protective cover (not shown)

Photocells integrated in the door frame EL 401 1

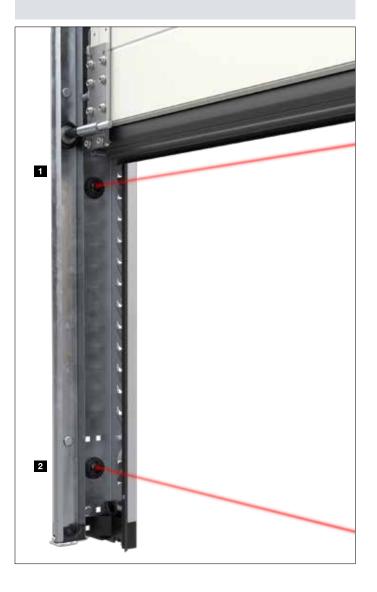
Fitting height 600 mm (property protection)

EL 501 2 .NEW

Assembly height 125 mm (personal protection), cannot be combined with RC2 equipment

The two photocells can be ordered individualy and combined for full protection.

- With separate transmitter and receiver
- The photocell is tested by the control prior to each downward movement.
- Dimensions (W × H × D): Ø 25 mm
- Depth 55 mm
- Not in combination with VL1-LE, VL2-LE or HLG







HS 5 BS 4 button functions, plus query button, high-gloss surface black or white



HS 5 BS 4 button functions, plus query button, textured surface matt black



HS 4 BS 4 button functions, textured surface matt black



HS 1 BS 1 button function, textured surface matt black



HSE 1 BS 1 button function, including eyelet for key ring, textured surface matt black

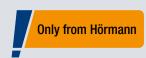


HSE 4 BS 4 button functions, incl. eyelet for key ring, textured surface matt black with chrome or plastic caps



4-button security hand transmitter HSS 4 BSAdditional function: copy protection for hand transmitter coding, with chrome caps





Modern radio system

The bi-directional radio system BiSecur is based on future-oriented technology for the convenient and secure operation of industrial doors. The extremely secure BiSecur encryption protocol makes sure that no-one can copy your radio signal. It was tested and certified by security experts at Bochum university.

Your advantages

- 128-bit encryption with the same high security level as online banking
- Interference-resistant radio signal with a stable range
- Convenient querying of the door position*
- Backwards compatible, i.e. radio receivers with the frequency 868 MHz (2005 to June 2012) can also be operated with BiSecur control elements
- * With WA 300 S4 with optional bi-directional receiver ESEi BS, for all other operators with optional bi-directional receiver HET-E2 24 BS and end-of-travel position feedback

⇔ BiSecur



Radio code switch FCT 3 BS

3 functions, with illuminated buttons, recessed or surface-mounted fitting possible, plastic housing in Light grey 7040 (also available with 10 functions and hinged cover, painted in White aluminium RAL 9006)



Radio code switch FCT 10 BS

10 functions, with illuminated buttons and hinged cover, recessed or surface-mounted fitting possible, plastic housing painted in RAL 9006 White aluminium



Radio finger-scan FFL 25 BS

2 functions and up to 25 fingerprints, with hinged cover, recessed and surfacemounted fitting possible, plastic housing painted in RAL 9006 White aluminium



Radio radar button FSR 1 BS

Sensor for non-contact opening, plastic housing, IP 41 For recessed and surface-mounted fitting

Radar button HTR 1-230/1-24 Wired version with 230 V or 24 V







Industrial hand transmitter

HSI 3 BS .NEW from June 2023, HSI 6 BS, HSI 15 BS
For controlling up to 3 doors (HSI 3 BS), 6 doors (HSI 6 BS)
or 15 doors (HSI 15 BS), with extra-large buttons for easier
operation with work gloves, impact-resistant housing
Protection category: IP 65



Industrial hand transmitter HSI BS

For controlling up to 1000 doors, with a display and extra-large quick selection buttons for easier operation with work gloves, transferring of hand transmitter coding to other devices possible, connection to external power supply via optional connection cable



3-channel receiver HEI 3 BS

For controlling 3 functions

Bi-directional receiver ESEi BS

Query of the door position



1-channel relay receiver HER 1 BS

1 volt-free relay output with status query



2-channel relay receiver HER 2 BS

2 volt-free relay outputs with status query and external antenna



2-channel relay receiver HET-E2 24 BS

2 volt-free relay outputs for choosing the direction, one 2-pin input for volt-free Open and Close limit switch reporting (for querying the door position)



4-channel relay receiver HER 4 BS

4 volt-free relay outputs with status query

Accessories

Button



Push button DTH-R/DTH-RM

Separate control of both operational directions; separate stop button, with miniature lock (DTH-RM only): Control of the operator is deactivated – operator movement is no longer possible (2 keys included in the scope of delivery)

Dimensions: $90 \times 160 \times 55 \text{ mm (W} \times \text{H} \times \text{D)};$ protection category: IP 65



Push button DTH-I/DTH-IM

To move the door into the OPEN/CLOSE positions, separate stop button to stop door travel, 1/2 Open button to open the door up to the programmed intermediate travel limit, with miniature lock (DTH-IM only): operator control is deactivated, operator movement is no longer possible (2 keys included in the scope of delivery)

Dimensions:

 $90 \times 160 \times 55 \text{ mm (W} \times H \times D)$ Protection category: IP 65

Note:

With integrated control WA 300 S4, only in combination with UAP 1-300, not for control 545



Push button DTP 02

Opening or closing via a command button, separate stop button, operation control light for control voltage, lockable with profile half cylinder (available as an accessory),

Dimensions: $77 \times 235 \times 70 \text{ mm (W} \times \text{H} \times \text{D)}$ Protection category: IP 44



Push button DTP 03

For separate control of both operational directions, separate stop button, operation control light for control voltage, lockable with profile half cylinder (available as an accessory),

Dimensions: $77 \times 270 \times 70 \text{ mm (W} \times \text{H} \times \text{D)}$ Protection category: IP 44

Note:

The lockable function serves to isolate the control voltage and immobilises the command units. Profile half cylinders are not included in the scope of delivery for the push buttons.



Key switch ESU 30

Impulse or Open / Close functions selectable
Dimensions of the switch box:
60 mm (d), 58 mm (D),
Dimensions of the cover:
90 × 100 mm (W × H),
Brickwork recess:
65 mm (d), 60 mm (D);
Protection category: IP 54

with 3 keys, recessed version,

Surface-mounted version ESA 30

(not shown) Dimensions: $73 \times 73 \times 50 \text{ mm} (W \times H \times D)$



Key switch STAP 50

with 3 keys, surface-mounted version

Dimensions: $80 \times 80 \times 63 \text{ mm (W} \times H \times D)$;

Protection category: IP 54

Key switch STUP 50

With 3 keys, recessed version (not shown)

Dimensions: 80 × 80 mm (W × H); Protection category: IP 54



Pull switch ZT 2 with cord

Impulse transmission to open or close the door

Dimensions:

 $60 \times 90 \times 55$ mm (W × H × D); Length of pull cord: 3.2 m; Protection category: IP 65

Cantilever arm KA1 (not shown) Extension 1680 – 3080 mm Can be used with ZT 2



Posts

With a screw base for fitting to the floor, surface finish in White aluminium RAL 9006, 90×90 mm tube, also available as a set-inconcrete version

Post STN 1

To hold 1 command unit on the surface, height 1050 mm

Post STN 1-1

To hold 2 command units or 1 command unit and 1 warning light, height 1200 mm

For command units: CTR 1b-1, CTR 3b-1, CTV 3-1, CTP 3-1, TTR 1000-1, FL 150, STUP 50, LED double warning lights red/green

Accessories

Button, detector



Code switch CTR 1b-1, CTR 3b-1 For 1 (CTR 1b-1) or 3 (CTR 3b-1)

For 1 (CTR 1b-1) or 3 (CTR 3b-1) functions, with illuminated buttons

Dimensions: $80 \times 80 \times 15 \text{ mm (W} \times H \times D)$



Code switch CTV 3-1

For 3 functions, with particularly robust metal keypad

Dimensions: $80 \times 80 \times 15 \text{ mm (W} \times H \times D)$



Code switch CTP 3

For 3 functions, with illuminated lettering and touch-sensitive surface

Dimensions: $80 \times 80 \times 15 \text{ mm (W} \times H \times D)$



Decoder housing

For code switches CTR 1b-1, CTR 3b-1, CTV 3-1, CTP 3

Dimensions: $140 \times 130 \times 50$ mm (W × H × D) Switching capacity: 2.5 A / 30 V DC 500 W / 250 V AC



Finger-scan FL 150

For 2 functions, up to 150 fingerprints can be saved

Dimensions: $80\times80\times13~\text{mm}~(\text{W}\times\text{H}\times\text{D});$ Decoder housing: $70\times275\times50~\text{mm}~(\text{W}\times\text{H}\times\text{D});$ Switching capacity: 2.0~A/30~V~DC



Radar movement detector RBM 2

For OPEN door impulse with directional recognition, max. fitting height: 6 m; optional remote control for radar movement detector

Dimensions: $155\times132\times58\,\text{mm (W}\times\text{H}\times\text{D)};$ Contact load: $24\,\text{AC}\,/\,\text{DC},\,1\,\text{A (resistivity)};$ Protection category: IP 65





Transponder key switch TTR 1000-1

For 1 function via transponder key or transponder card, up to 1000 keys or cards can be saved

Dimensions: $80 \times 80 \times 15$ mm (W × H × D); Decoder housing: $140 \times 130 \times 50$ mm (W × H × D); Switching capacity: 2.5 A / 30 V DC; 500 W / 250 V AC

Receivers, gateways



Bluetooth receiver HET-BLE

For operation, impulse sequence control of industrial sectional doors via the Hörmann BlueSecur app

Dimensions: 110 ×45 ×40 mm (W ×H ×D)



UAP 1-300

For WA 300 R S4 or control 300; impulse selection, partial opening function, limit switch reporting and activating kit for warning light with 2 m system cable,

Dimensions: $150 \times 70 \times 52 \text{ mm (W} \times H \times D);$ Max. switching capacity: 0 V DC / 2.5 A (resistivity), 250 V AC / 500 W (resistivity); Protection category: IP 65



HOR 1-300

For WA 250 R S4, WA 300 R S4 or control 300 to control limit switch reporting or warning lights with 2 m connecting lead; optionally available for fitting in push button control 300 U (not shown)

Dimensions: $110 \times 45 \times 40 \text{ mm (W} \times H \times D);$ Max. switching capacity: 30 V DC / 2.5 A (resistivity), 250 V AC / 500 W (resistivity); Protection category: IP 44



Loxone gateway .NEW

For controls 545, 560 To control Hörmann operators and controls via the Loxone Smart Home control centre



KNX gateway

For controls 545, 560 To control Hörmann operators and controls via the KNX building automation



Widescan

Thanks to laser technology, the high-end motion detector and monitoring system guarantees operational safety, even with different floor coverings. The laser field acts as a reliable door monitor. It detects how fast and in which direction the object is travelling, ensuring optimum opening and closing reaction times. This minimises a door's hold time and saves energy.

- Also suited for outdoor areas as it is not susceptible to different weather conditions
- Reliable advance protection, as well as fast and targeted automatic door opening
- Full door opening for vehicles with a height of min. 2400 mm*
- Energy-saving partial opening with adjustable opening height for vehicles with a height of max. 2400 mm*
- Minimises the hold time of the door to save energy
- Easy to hide objects permanently or temporarily in the detection range 4
- Deactivation of cross-traffic and pedestrian traffic
- Virtual pull switch enables door opening by people or vehicles standing at a defined position
- · Visible LED spots on the floor assist during setup
- Easy connection to the operator control with plug-in wiring
- Bluetooth module for convenient configuration via app,
 e.g. with visualisation of the set field sizes in real-time
- * Can be individually set if required











Accessories

Activating kits, LED traffic lights



 $\label{eq:multi-function} \mbox{Multi-function circuit board to be fitted in an existing housing or optionally in a separate extension housing (shown)$

Limit switch reporting, momentary impulse, collective malfunction signalling, extension unit for controls

Extension housing with quick-acting closure .NEW Dimensions: $202 \times 164 \times 130$ mm (W × H × D); Protection category: IP 65

A circuit board can be optionally mounted in the control.



Digital weekly timer in a separate additional housing

The timer can switch command units on and off via a volt-free contact; extension unit for controls (for fitting in an existing housing) Switching capacity: 230 V AC 2.5 A/500 W, can be switched over to summer/winter time, manual switching: automatic operation, switching preselection permanently ON/OFF

Extension housing with quick-acting closure .NEW Dimensions: $202 \times 164 \times 130$ mm (W × H × D); Protection category: IP 65



Summer / winter activating kit in additional housing Function for full door opening and individually programmable intermediate travel limit, extension unit for controls

Extension housing with quick-acting closure .NEW Dimensions: $202 \times 164 \times 130$ mm (W × H × D); Protection category: IP 65





DI 1 induction loop in a separate additional housingSuitable for one induction loop, induction loop detector with a normally open contact and a change-over contact

DI 2 induction loop (not shown) in a separate additional housing

Suitable for two separate induction loops, induction loop detector with two volt-free closing contacts, can be set for impulse or permanent contact, directional recognition possible

Extension housing with quick-acting closure .NEW Dimensions: $202 \times 164 \times 130$ mm (W × H × D); switching capacity: DI 1: low voltage 2 A, 125 V A/60 W; DI 2: 250 V AC, 4 A, 1000 VA (resistivity AC); supplied without loop cable

Loop cable for induction loop: 50 m roll, cable designation: SIAF, cross-section: 1.5 mm², colour: brown





Activating kit for warning lights for fitting in an existing housing or optionally in a separate extension housing (shown)

Incl. 2 LED warning lights TL40S ye; extension unit for control, with activating kit for warning lights as a visual indicator during door travel (weekly timer optional);

Applications: approach warning, automatic timer

After the set hold-open phase has elapsed (0-480 s), the warning lights flash during the set pre-warning phase (0-70 s).

Extension housing with quick-acting closure .NEW Dimensions: $202 \times 164 \times 130$ mm (W × H × D), Contact load: 250 V AC; 2.5 A / 500 W; protection category: IP 65







Traffic control in a separate additional housing or for fitting in an existing housing (only for controls 360, 560)

incl. 2 LED traffic lights TL40S rd/gn or 2 LED traffic lights TL40S rd/ye*/gn; Extension unit for control, with activating kit for warning lights as a visual indicator for regulating the entrance and exit (optional weekly timer); Green phase time: adjustable $0-480\,\mathrm{s}$, clearance phase time: adjustable $0-70\,\mathrm{s}$

Extension housing with quick-acting closure .NEW Dimensions: $202 \times 164 \times 130$ mm (W × H × D), Contact load: 250 V AC; 2.5 A / 500 W; Protection category: IP 65

* Yellow is not required for traffic control



LED traffic light TL40S rd

1-light, red, operating voltage 100 – 240 V AC / 50 – 60 Hz Nominal power approx. 2 W Protection category: IP 65

Dimensions: $180 \times 250 \times 290 \text{ mm}$ $(W \times H \times D)$



LED traffic light TL40S ye

1-light, yellow, operating voltage 100 – 240 V AC / 50 – 60 Hz Nominal power approx. 2 W Protection category: IP 65

Dimensions: $180 \times 250 \times 290 \text{ mm}$ (W ×H ×D)



LED traffic light TL40S gn

1-light, green, operating voltage 100 – 240 V AC / 50 – 60 Hz Nominal power approx. 2 W Protection category: IP 65

Dimensions: $180 \times 250 \times 290 \text{ mm}$ $(W \times H \times D)$



LED traffic light TL40S rd / gn

2-light, red / green, operating voltage 100 – 240 V AC / 50 – 60 Hz Nominal power approx. 2 W Protection category: IP 65

Dimensions: $180 \times 467 \times 290 \text{ mm}$ (W ×H ×D)



LED traffic light TL40S rd/ye/gn

1-light, red/yellow/green, operating voltage 24 V DC Nominal power approx. 2 W Protection category: IP 65

Dimensions: $180 \times 250 \times 290 \text{ mm}$ (W ×H ×D)

Performance characteristics

acc. to EN 13241

Door types	SPU F42	SPU 67 Thermo	APU F42	APU F42 Thermo	APU 67 Thermo	ALR F42	ALR F42 Thermo	ALR 67 Thermo
Wind load	Class according	to EN 12424						
Door without wicket door Door with wicket door	3 ²⁾ / 4 ^{1, 2)} 2 ²⁾ / 3 ^{1, 2)}	3 ²⁾ / 4 ^{1, 2)} 2 ²⁾ / 3 ^{1, 2)}	3/4 ¹⁾ 2/3 ¹⁾	3/4 ¹⁾				
Water tightness	Class according	to EN 12425						
Door without / with wicket door	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa
Air permeability	Class according	to EN 12426						
Door without wicket door	2/33,5,6,7)	2/43,5,6,7)	2	2	2/35,6,7)	2	2	2/35)
Door with wicket door	1	1	1	1	1	1	1	1
Acoustic insulation ³⁾	R [db] according	g to EN ISO 717-1						
Door without wicket door	25 ³⁾	25 ³⁾	23	23	23	23/304)	23 / 30 4)	23/304
Door with wicket door	24 ³)	24 3)		22	22	22/294)	22 / 29 4)	22 / 29 4)
Thermal insulation Door without / with wicket door	U-value = W/(m²	·K) according to E	EN 13241, Append	dix B, for a door s	surface of 5000 ×	5000 mm		
Fitted door	1.0/1.2	0.62 / 0.82	-					
Nith ThermoFrame	0.94/1.2	0.51/0.75						
Synthetic double panes			3.4/3.6	2.9/3.1		3.6/3.8	3.0/3.2	
Vith ThermoFrame			3.3/3.6	2.8/3.1		3.6/3.8	3.0/3.2	
Synthetic triple panes			3.0/3.2	2.5/2.7	2.1/2.3	3.2/3.4	2.6/2.8	2.2/2.4
Vith ThermoFrame			2.9/3.1	2.4/2.6	2.0/2.2	3.1/3.4	2.5/2.8	2.1/2.3
Synthetic quadruple pane					1.8/2.0			1.9/2.1
Nith ThermoFrame					1.7/1.9			1.8/2.1
Clear double climate pane			2.5/2.7	2.0/2.2	1.6/1.8	2.7/2.9	2.1/2.3	1.7/1.9
Vith ThermoFrame			2.4/2.6	1.9/2.1	1.5/1.7	2.6/2.8	2.0/2.2	1.6/1.8
Oouble real glass pane			3.4/3.6	2.9/3.1	2.6/2.8	3.6/3.8	3.0/3.2	2.7/2.9
Nith ThermoFrame			3.3/3.6	2.8/3.0	2.5/2.7	3.6/3.8	3.0/3.2	2.6/2.8
Single real glass pane Vith ThermoFrame								
PU sandwich infill With ThermoFrame								

Side doors	NT 60 for SPU	NT 60 for APU	NT 60 for ALR	NT 60 for ALR Vitraplan	NT 80 Thermo for SPU	NT 80 Thermo for APU	NT 80 Thermo for ALR
Wind load Class according to EN 12424	3C	3C	3C	3C	4C	4C	4C
Air permeability Class according to EN 12426	3	3	3	3	3	3	3
Water tightness under heavy rain Unprotected, opening outwards	1A	1A	1A	1A	1A	1A	1A
Thermal insulation U-value = W/(m²-K) according to EN 13241, Appendix B, for a door size of 1250 × 2200 mm	2,9	4,2	4,7	4,7	1,6	2,2	2,4

<sup>To door widths up to 4000 mm
Lower class rating may apply for doors with compound glazing
For doors without glazing frame
Information refers to thermal insulation values with real glass pane (optional)
With ThermoFrame
with optional Increased air permeability set
Only for Micrograin surface finish</sup>

ALR F42 Glazing	ALR F67 Thermo Glazing	ALR F42 Vitraplan	ALR F42 Vitraplan AT	Glazings / infills	Ug value	τν value %
				Synthetic panes		
3/41)	3 / 4 1)	3/41)	3/41)	Single pane, 3 mm Clear		88
				Crystal structure		84
				Double pane, 26 mm		
3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	Clear	2,6	77
				Crystal structure	2,6	77
				Grey tinted	2,6	3
				White tinted (opal)	2,6	69
2	2/35)	2	2	Triple pane, 26 mm Clear	1,9	68
			- -	Crystal structure	1,9	68
				Grey tinted	1,9	3
				White tinted (opal)	1,9	61
30	30	23	23			
			. <u> </u>	Triple pane, 51 mm Clear	1.6	68
					1,6	
				Crystal structure	1,6	68
				Grey tinted	1,6	3
				White tinted (opal)	1,6	61
				Quadruple pane, 51 mm		
		3,2		Clear	1,3	60
		3,2		Crystal structure	1,3	60
		3,1		Grey tinted	1,3	2
		3,1		White tinted (opal)	1,3	54
				Polycarbonate panes		
				Single pane, 6 mm		
2.7/- 2.6/-	1.8/- 1.7/-			Clear	-	-
			·	Double pane, 26 mm		
3.8/-	3.0/-			Clear	2,7	81
3.8/-	2.9/-			Triple name 54 mm		
6.1/-				Triple pane, 51 mm Clear	1,6	70
6.1/-						
			2,6	Quadruple pane, 51 mm	4.0	04
			2,6	Clear —	1,3	61
				Real glass panes		
				Single pane, 6 mm		
				Clear	5,7	88
				Double pane, 26 mm		
				Clear	2,7	81

Vitraplan attachments on request

Multiple-moulded pane

Double climate pane, 26 mm

Clear

Infill

 $\begin{array}{ll} \text{Ug value} & \text{Thermal} \\ \tau_{_{V}} \text{ value} & \text{Light tran} \\ \text{g value} & \text{Total energy} \end{array}$

Thermal insulation value Light transmission (transparency) Total energy transmittance 1,1

1,9

g value

Construction and quality features

acc. to EN 13241

	SPU F42	SPU 67 Thermo	APU F42	APU F42 Thermo	APU 67 Thermo
Construction					
Self-supporting	•	•	•	•	•
Depth, mm	42	67	42	42	67
Door sizes					
Max. width mm, LZ	8000	10000	8000	7000	10000
Max. height mm, RM	7500	7500	7500	7500	7500
Material, door leaf					
Double-skinned steel section	•	_	•	•	-
Double-skinned steel section with thermal break	-	•	-	_	•
Aluminium profile	-	_	•	_	-
Aluminium profile, with thermal break	-	_	-	•	•
Surface, door leaf	 : - :		<u></u> -		-
Galvanized steel, coated RAL 9002	•	•	0	0	0
Galvanized steel, coated RAL 9006	0	0	•	•	•
Galvanized steel, coated RAL to choose	0	0	0	0	0
Anodised aluminium E6/C0	-	-	•	•	•
Aluminium coated in RAL to choose	-	_	0	0	0
Aluminium coated in RAL 9005	-	-	-	-	-
Wicket door	0	0	0	0	0
Side doors					
Side door NT 60 matching the door	0	0	0	0	0
Side door NT 80 Thermo matching the door	0	0	0	0	0
Glazing			<u></u> -		
Type A section windows	0	0	_	_	_
Type D section windows	0	0	-	_	-
Type E section windows	0	_	_	_	_
Aluminium glazing frame	0	0	•	•	•
Seals					
All-round on 4 sides	•	•	•	•	•
Intermediate seal between the door sections	•	•	•	•	•
ThermoFrame	0	0	0	0	0
Locking systems					
Inside locking	•	•	•	•	•
Outside / inside locking	0	0	0	0	0
Security features					
Anti-lift kit	•	•	•	•	•
RC2 security features	0	0			
Safety features in acc. with EN 13241					
Finger trap protection	•	_	•	•	-
Side trap guard	•	•	•	•	•
Safety catch for doors	•	•	•	•	•
Fastening options					
Concrete	•	•	•	•	•
Steel	•	•	•	•	•
Brickwork	•	•	•	•	•
Others on request					

^{●=}As standard ○=Optional

ALR F42	ALR F42 Thermo	ALR 67 Thermo	ALR F42 Glazing	ALR F67 Thermo Glazing	ALR F42 Vitraplan	ALR F42 Vitraplan AT
• 42	• 42	• 67	• 42	• 67	● 42	● 42
8000 7500	7000 7500	10000 7500	5500 4000	5500 4000	6000 7000	6000 7000
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