New high-speed sectional door HS 5015 Acoustic H with 31 dB acoustic insulation



# High-Speed Doors

For optimised material flow and improved efficiency







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## Hörmann brand quality

#### Reliable and oriented towards the future





#### **High-speed progress**

Without on-going development and improvements by our highly-qualified technicians as well as comprehensive knowledge of all the market requirements, efficient high-speed door designs of a recognised high standard would not be possible.

The best examples are the new high-speed sectional doors.



#### **Precise production**

Innovative production processes that have been matched perfectly with each other are a guarantee for steadily increasing product quality. An example: the modern hot air welding system that enables a precise and automated welding of the door curtains.





As Europe's leading manufacturer of doors, hinged doors, frames and operators, we are committed to high product and service quality. This is how we set standards on an international scale.

Highly-specialised factories develop and produce construction components that are marked by excellent quality, functional safety and a long service life.

Our presence in the global economy's key regions makes us a strong, future-oriented partner for industrial and public construction projects.



Certified safety
Hörmann high-speed
doors are
manufactured in line
with stringent
European standards
and are, of course,
outified



It goes without saying that spare parts for doors, operators and controls are Hörmann parts that come with a guaranteed availability of 10 years.



#### Competent advice

Experienced specialists within our customer-oriented sales organisation accompany you from the planning stage, through technical clarification up to the final building inspection. Complete working documentation is not only available in printed form but is always accessible and up-to-date at www.hoermann.com.

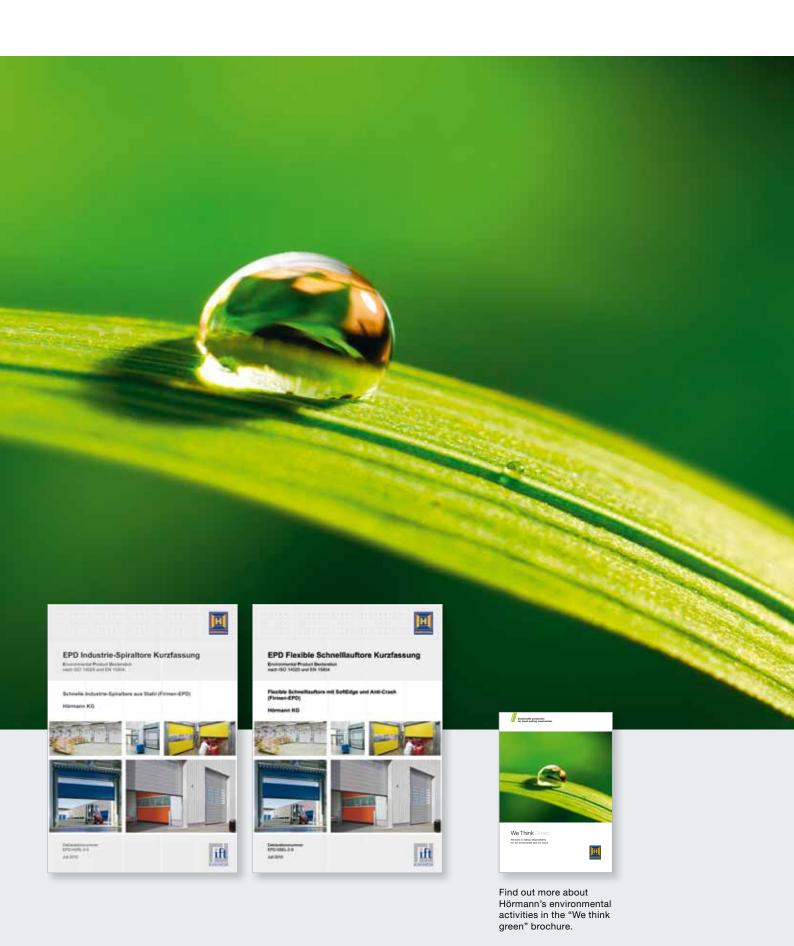


#### **Efficient service**

Our extensive service network means that we are never far away. This is a major advantage in terms of inspections, maintenance and repairs.

## **Sustainable production**

For future-oriented construction





#### Sustainably produced: Hörmann's high-speed doors

#### **Ecological quality**

A comprehensive energy management system ensures environmentally-friendly production.

#### **Economic quality**

The use of high-quality materials and innovative technologies such as the FU controls as standard results in long service life and low maintenance costs.

#### **Functional quality**

High-speed doors are used both inside and as exterior doors to optimise the flow of traffic, improve indoor climate and save energy.

#### **Process quality**

The further use of single-origin metal and UPVC scraps from the production process saves material resources.

## Sustainability verified and documented by ift Rosenheim

Hörmann is the only manufacturer who already received confirmation of the sustainability of all its high-speed doors through an environmental product declaration (EPD) in accordance with DIN ISO 14025 and EN 15804 from the Institut für Fenstertechnik (ift – Institute of window technology) in Rosenheim. The inspection was based on the Product Category Rules (PCR) "Doors and Gates". Environmentally-friendly production was confirmed by a life-cycle analysis in accordance with DIN EN 14040 / 14044 for all high-speed doors.

# Sustainable construction with Hörmann competence

Hörmann has already been able to gain great expertise in sustainable construction through various projects. We also apply this know-how to support your projects.

#### References for sustainable construction with Hörmann



ThyssenKrupp, Essen



dm logistics centre, Weilerswist



Immogate logistics centre, Munich

Nordex-Forum, Hamburg
Unilever Hafen-City, Hamburg
Deutsche Börse, Eschborn
Opernturm, Frankfurt
Skyline-Tower, Munich
Prologis Pineham Sites, Sainsbury











## **Good reasons to try Hörmann**

Quality features of spiral doors and high-speed sectional doors



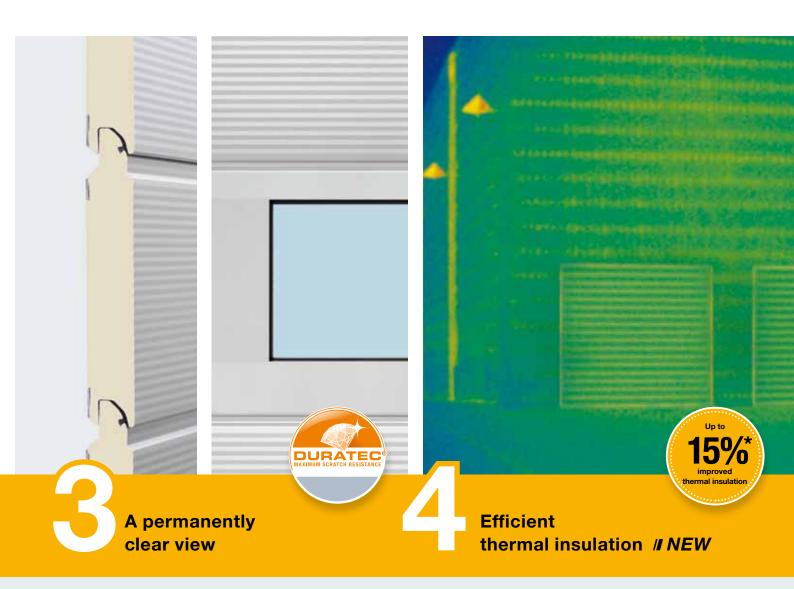
#### Non-contact safety

The safety light grille integrated in the frame monitors the closing zone of the door up to a height of 2500 mm. This does away with the need for additional installations on the door (e.g. closing edge safety device, photocell). Profit from this high level of safety with a high-speed door that is exceptionally easy to fit and service.

#### Long service life and high efficiency as standard

The standard frequency converter control takes stress off the entire door mechanism, guaranteeing nearly wear-free, quiet door travel. The high opening and closing speeds optimise your operations and reduce heat losses. In addition, they relieve the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door.

# Optionally available in version with an acoustic rating of up to 31 dB



#### Uniformly foamed steel sections

Hot-galvanized, double-skinned sections with PU rigid foam infill provide for particularly high thermal insulation, resulting in a  $U_D$  value of 1.95 W/( $m^2$ ·K)\*. The doors are supplied as standard in White aluminium (RAL 9006). The exterior is characterised by the fine Micrograin lines, on the interior the sections are Stucco-textured.

#### **Optional glazing**

26-mm-thick DURATEC double glazing guarantees maximum scratch resistance and excellent thermal insulation values. An aluminium rail construction in natural finish E6 / EV 1 divides the glazing using stabilising intermediate spacers. DURATEC triple glazing is also available on request for even better thermal insulation.

## Increased thermal insulation thanks to ThermoFrame

The optional ThermoFrame separates the frame from the building structure. The thermal break, including additional seals, improves thermal insulation by up to 15 % and provides optimal corrosion protection for the side frame. The ThermoFrame is easy and quick to fit.

<sup>\*</sup> For 25 m² door surface

## Spiral doors and high-speed sectional doors

Fast external doors with PU insulating panels for high thermal insulation



These doors are characterised by their high thermal insulation, fast opening speed and light grilles as standard. The hot-galvanized, double-skinned sections with an elegant Micrograin surface finish are guided into a spiral or into tracks without contact, depending on the version.

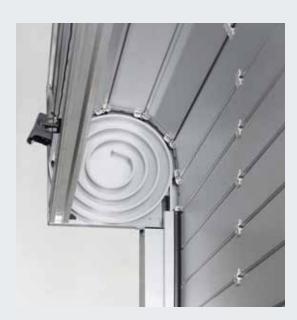
## Spiral door HS 7030 PU

#### With non-contact roll-up technology



#### A compact spiral guide

The sections are securely guided into a spiral bracket without any contact. With the high-performance 3-phase frequency converter control (FU) and the chain mechanism with spring compensation, the door reaches an opening speed of up to 2.5 m/s. Spiral door HS 7030 PU can also be fitted externally.



HS 7030 PU	
6500 mm	
6000 mm	
	6500 mm

#### Speed

With standard FU control AS 500 FU E

Max. opening speed 1.5 – 2.5 m/s Max. closing speed 0.5 m/s

#### Resistance to wind load (EN 12424)

Class 4, max. 133 km/h

Acoustic insulation (EN 717-1)

(Without glazing) R = 26 dB

#### Thermal insulation (EN 12428)

For 25 m<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

Door leaf

Material Steel sandwich construction, PU-foamed,

DURATEC glazing optional
Depth 42 mm
Section height 225 mm
Hinge connections from approx. 3500 mm door width

Door leaf colours\*\*

Available in over 200 colours based on RAL. Standard: White aluminium, RAL 9006

Emergency opening / emergency closing

BK 150 FU E UPS, 230 V (up to approx. 9  $\mathrm{m}^2$  door surface)

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours.

Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

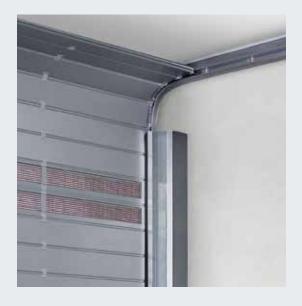
## High-speed sectional door HS 5015 PU N

#### With normal track application



#### The space-saving track application

For tight spaces in the lintel area, we recommend track application N. A chain mechanism with spring compensation runs the sections into horizontal tracks. This requires a low headroom of 480 mm.



External door / internal door	HS 5015 PU N
Size range	
Max. width (LDB)	5000 mm
Max. height (LDH)	5000 mm

#### Speed

With standard FU control AS 500 FU E

Max. opening speed 1.5 – 2.5 m/s Max. closing speed 0.5 m/s

#### Resistance to wind load (EN 12424)

Class 4, max. 133 km/h

Acoustic insulation (EN 717-1)

(Without glazing) R = 26 dB

#### Thermal insulation (EN 12428)

For 25 m² door size  $U_D = 1.95 \text{ W/(m²·K)}$ 

#### Door leaf

Material Steel sandwich construction, PU-foamed,

DURATEC glazing optional
Depth 42 mm
Section height 225 mm
Hinge connections from approx. 3500 mm door width

#### Door leaf colours\*\*

Available in over 200 colours based on RAL. Standard: White aluminium, RAL 9006

#### Emergency opening / emergency closing

BK 150 FU E UPS, 230 V (up to approx. 9  $\rm m^2$  door surface on request) Emergency hand chain

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours.

Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

## High-speed sectional door HS 5015 PU H

#### With high-lift track application



#### The adjustable track application

The sections are guided in horizontal tracks and can be diverted flexibly depending on the fitting situation. Thus, the door can be fitted behind or above supply lines and crane tracks. Thanks to the belt mechanism with counter weights, the door is especially low-wear and long-lasting thanks to the belt mechanism.



External door / internal door	HS 5015 PU H
Size range	
Max. width (LDB)	5000 mm
Max. height (LDH)	6000 mm

With standard FU control AS 500 FU E

1.5-2.5 m/s Max. opening speed Max. closing speed  $0.5 \, \text{m/s}$ 

#### Resistance to wind load (EN 12424)

Class 4, max. 133 km/h

Acoustic insulation (EN 717-1)

(Without glazing) R = 26 dB

Thermal insulation (EN 12428)

For 25 m<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

Door leaf

Material Steel sandwich construction, PU-foamed,

DURATEC glazing optional 42 mm Depth Section height 225 mm

Hinge connections from approx. 3500 mm door width

Door leaf colours\*\*

Available in over 200 colours based on RAL. Standard: White aluminium, RAL 9006

Emergency opening / emergency closing

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours. Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

## High-speed sectional door HS 5015 Acoustic H

Acoustic-rated door with high-lift track application





#### The acoustic-rated solution

Due to statutory requirements, acoustic-rated doors are now often essential. The HS 5015 Acoustic H with 5 UPVC/30 PU infill aluminium hollow profiles offers acoustic insulation up to –31 dB (A).



External door / internal door	HS 5015 Acoustic H
Size range	
Max. width (LDB)	5000 mm
Max. height (LDH)	5000 mm

#### Speed

With standard FU control AS 500 FU E

 $\begin{array}{ll} \text{Max. opening speed} & 1.5-2.5 \text{ m/s} \\ \text{Max. closing speed} & 0.5 \text{ m/s} \\ \end{array}$ 

#### Resistance to wind load (EN 12424)

Class 4, max. 133 km/h

#### Acoustic insulation (EN 717-1)

(Without glazing) R = 31 dB

#### **Door leaf**

Material Aluminium construction, 5 UPVC / 30 PU, foamed

Depth 42 mm Section height 225 mm Hinge connections from approx. 3500 mm door width,

No glazing available

#### Door leaf colours\*\*

Available in over 200 colours based on RAL. Standard: Anodised aluminium, E6 / EV 1

#### Emergency opening / emergency closing

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours.

Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

## High-speed sectional door HS 6015 PU V

#### With vertical track application



#### Dependable with minimum wear

The sections run vertically on the wall of the hall, ensuring that the door cycles are very quiet and wear-free. The belt mechanism with counter weights guarantees a long service life with constant use.



External door / internal door	HS 6015 PU V	
Size range		
Max. width (LDB)	6500 mm	
Max. height (LDH)	6000 mm	

#### Speed

With standard FU control AS 500 FU E

 $\begin{array}{ll} \text{Max. opening speed} & 1.5-2.5 \text{ m/s} \\ \text{Max. closing speed} & 0.5 \text{ m/s} \\ \end{array}$ 

#### Resistance to wind load (EN 12424)

Class 4, max. 133 km/h

#### Acoustic insulation (EN 717-1)

R = 26 dB

#### Thermal insulation (EN 12428)

For 25 m<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Door leaf

Material Steel sandwich construction, PU-foamed,

DURATEC glazing optional
Depth 42 mm
Section height 225 mm
Hinge connections from approx. 3500 mm door width

#### Door leaf colours\*\*

Available in over 200 colours based on RAL. Standard: White aluminium, RAL 9006

#### Emergency opening / emergency closing

BK 150 FU E UPS, 230 V (up to approx. 20 m² door size on request)

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours. Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

## **Good reasons to try Hörmann**

#### Quality features of the flexible high-speed doors



#### Non-contact safety

The standard safety light grille monitors the closing zone of the door up to a height of 2500 mm.

A closing edge safety device is not required.

Fitting in the frame also reduces the risk of collision damage. These advantages are what makes

Hörmann high-speed doors especially easy to service and fit.

## Impulses for a longer service life and increased efficiency

At Hörmann, you receive all high-speed doors with a frequency converter control (FU) as standard – for fast, safe and low-wear door travel. High opening and closing speeds help you to optimise your operations and reduce heat losses and draughts at the workplace. In addition, they relieve the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door.

#### Innovative door technology Particularly easy to fit and service as standard





Practical solutions

# Innovative details

## No downtimes resulting from a crash thanks to the SoftEdge bottom profile

The innovative SoftEdge door technology prevents damage and resulting downtimes of the door system. Extensive repairs, such as those with rigid bottom profiles, do not become necessary. SoftEdge ensures trouble-free operation and production processes.

#### Radio crash switch

The radio crash switch is concealed in the SoftEdge bottom profile. If the bottom profile is pushed out of the side guides by a crash, the radio crash switch transmits a signal to the control and the **door is stopped immediately,** fulfilling the requirements of DIN EN 13241-1.

## Flexible high-speed doors

To improve indoor climate and optimise the flow of traffic



Flexible high-speed doors from Hörmann have been designed for safe, efficient and lasting operation. A standard light grille does away with the need for additional installations, such as a closing edge safety device, making the doors particularly easy to fit and service.

### **V** 4015 SEL R

#### Internal door with SoftEdge and tubular drive



#### For logistics areas and supermarkets

Storage shelves often do not permit a gearbox that protrudes on the side. Here, the high-speed door V 4015 SEL R with the tubular drive integrated in the door shaft is an optimum solution.

#### **Fully equipped**

The standard frequency converter control (FU) guarantees fast and quiet door travel. In addition, the door is equipped with a safety light grille and SoftEdge bottom profile with manual insertion for increased personal safety.

The shaft cover that is limited to the construction width is available in a galvanized version and, on request, in a powder-coated version based on RAL.

#### Fitted quickly and simply

To enable a quick fitting, the door shaft is already assembled with the tubular drive at the factory.



Standard shaft cover with standard emergency crank handle.

Internal door	V 4015 SEL R
Size range Max. width (LDB) Max. height (LDH)	4000 mm 4000 mm

#### Speed

With standard FU control BK 150 FU E H
Max. opening speed 1.5 m/s
Max. closing speed 0.8 m/s

#### Curtain

Spring steel in curtain pockets
Or aluminium profile (from 2500 mm door width)
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### Curtain colours

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Emergency crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

## **V** 5015 SEL





#### **Especially economical**

The inexpensive high-speed door for inside, with SoftEdge bottom profile and standard FU control for safe and gentle continual operation.

The curtain stability of the door type V 5015 SEL is achieved through proven aluminium profiles and a horizontally stable SoftEdge bottom profile at the lower edge.

#### **Aluminium profiles**

In case of repair, the inexpensive curtain stabilization allows the curtain segments to be replaced quickly and easily.



Curtain stability with aluminium profiles



Optional fly-protection curtain in place of the vision panel

Internal door	V 5015 SEL
Size range Max. width (LDB) Max. height (LDH)	5000 mm 5000 mm

#### Speed

With standard FU control BK 150 FU E H
Max. opening speed 1.5 m/s
Max. closing speed 0.8 m/s

#### Curtain

With aluminium profile
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Emergency crank handle Optional: Automatic door opening via UPS in case of power failure

### **V 5030 SEL**

Internal door with SoftEdge and anti-crash



#### Quiet and fast

In areas with a low noise level, a door should cause little noise, too, and work quickly and reliably even with strong draughts.

This is why the V 5030 SEL is equipped with spring steel wind locks, that provide the door with the curtain stability it needs.

#### Spring steel wind locks

Integrated in a curtain pocket, with lateral twin rollers, they ensure quiet door travel and allow for higher wind loads.

You can also optionally obtain the V 5030 SEL with aluminium bottom profile for wind class 1 (DIN EN 12424).



Spring steel wind lock

V 5030 SEL
5000 mm

Max. height (LDH) 5000 mm

With standard FU control BK 150 FU E H 2.0 m/s Max. opening speed Max. closing speed 0.8 m/s Optional control AS 500 FU E

#### Resistance to wind load (EN 12424)

Class 1, max. 88 km/h With aluminium bottom profile

#### Curtain

Spring steel wind lock with lateral twin rollers Fabric thickness 1.5 mm Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Emergency crank handle

Optional: Automatic door opening via UPS

in case of power failure

#### Internal and external door with SoftEdge and anti-crash



#### For highly-frequented transport routes, with crash-protection

External doors are driven into, e.g. by forklifts, more frequently than internal doors. This is where crash-protection pays off because it significantly reduces downtimes and repair costs.

And the high speeds at which the door opens and closes also save on energy costs.

#### Spring steel wind lock in curtain pocket

The lateral twin rollers ensure quiet and secure door travel. Even wind loads of up to 100 km/h do not pose problems thanks to the spring steel wind protectors.

You can also optionally obtain the V 6030 SEL with aluminium bottom profile.



Spring steel wind lock



The tensioning system tensions the door curtain for reliable door travel.

ternal door /	external door	V 6030 SEI

Size range	
Max. width (LDB)	5000 mm

#### Max. height (LDH) 6000 mm With standard FU control BK 150 FU E H

2.0 m/s Max. opening speed Max. closing speed Optional control AS 500 FU E

#### Resistance to wind load (EN 12424)

Class 2, max. 100 km/h

#### Curtain

Spring steel wind lock with lateral twin rollers and tensioning system

Fabric thickness 1.5 mm Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Emergency crank handle Optional: Automatic door opening via UPS in case of power failure

#### V 6020 TRL



#### Fully transparent for more light

The fully transparent high-speed door V 6020 TRL is suitable for high ingress of light as an external door but also for an improved view in internal areas.

The 4-mm-thick transparent curtain lets light into the room resulting in a pleasantly bright workplace.

If used as an external door, we recommend the heavy, partially transparent version.

#### See what's coming at you

Transport routes become safer through unimpeded visual contact. Fully transparent curtains are available in sizes up to 25 m<sup>2</sup>; from 25 m<sup>2</sup> only fabric curtains with an optional vision field.

#### Wind lock

In addition to the standard tensioning system, the spring steel wind locks ensure the required curtain stability.



Transparent for more light and an unimpeded view



Aluminium bottom profile for more stability

#### Internal door / external door V 6020 TRL

#### Size range Max. width (LDB)

6000 mm Max. height (LDH) 7000 mm

With standard FU control BK 150 FU E H (up to 95 kg), FU control AS 500 FU E (from 95 kg) Max. opening speed 2.0 m/s Max. closing speed 0.5 m/s

#### Resistance to wind load (EN 12424)

Class 3, max. 115 km/h

#### Curtain

Spring steel wind lock with lateral twin rollers and tensioning system

Fully transparent curtain thickness 4.0 mm Fabric thickness 2.4 mm

(from 25 m<sup>2</sup> door size)

#### Wind lock strip colours

RAL 1018 Zinc yellow

RAL 2004 Pure orange (optional fabric colour)

RAL 3002 Carmine red

RAL 5010 Gentian blue (optional fabric colour) RAL 7038 Agate grey (optional fabric colour)

#### **Emergency opening**

Emergency crank handle Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V) (up to approx. 12.25 m<sup>2</sup> door size)

## V 9012 L Stacking

Internal and external door for large openings





#### Folding curtain with belt system

The curtain is opened via a belt system with wind reinforcement laths and folded in the lintel area. The aluminium profiles are arranged vertically, at distances of 600 mm along the entire door height. As standard, a 600 mm vision panel is integrated into the curtain over the entire door width. On request, two sections can also be transparent.

#### Ideal for external fitting

The V 9012 L Stacking was designed especially for high door openings in halls with little lintel space (min. 1350 mm), since the door can also be fitted outside on the hall. The operator technology is integrated in the frame and barrel cover, protected from adverse effects of the weather. The control can optionally be operated simply and conveniently from the floor via an external control element integrated into the frame. (Additional, external control element required)



Integrated operator technology



Aluminium profiles stabilising the curtain

V 9012 L Stacking

Size range	
Max. width (LDB)	9000 mm
Max height (LDH)	6000 mm

#### Speed

With standard relay control unit AKE (up to 200 kg)

Max. opening speed 0.8 m/s

Max. closing speed 0.8 m/s

With optional FU control

Max. opening speed 0.8 m/s

Max. closing speed 0.8 m/s
With standard FU control AS 500 FU E (from 200 kg)
Max. opening speed 1.2 m/s
Max. closing speed 0.8 m/s

#### Resistance to wind load (EN 12424)

Door width up to 6000 mm Class 3, max. 115 km/h Door width over 6000 mm Class 2, max. 100 km/h

#### Curtain

With aluminium profiles

Thick, textile-reinforced UPVC 0.9 mm Vision panel thickness 2.0 mm

#### Curtain colours

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Emergency crank handle Optional: Emergency hand chain

#### External door for especially large openings



#### For oversized openings

Double lashing straps and especially wide side guides ensure safe door travel even with a high door curtain weight. The standard FU control and double closing edges on the bottom profile ensure that the closing force is maintained and provide the door with its required safety.

#### Spring steel wind lock in curtain pocket

The lateral twin rollers ensure quiet and secure door travel. Even wind loads of up to 100 km/h do not pose problems thanks to the spring steel wind protectors. The number of wind locks is determined by the door size, wind load requirements and the fitting situation.



Spring steel wind lock



Especially deep curtain recess

External door	V 10008	
Size range		
Max. width (LDB)	10000 mm	
Max. height (LDH)	6250 mm	
Speed With standard FU control AS 50 (door width up to 6000 mm) Max. opening speed Max. closing speed	0 FU E 1.5 m/s 0.4 m/s	

#### Resistance to wind load (EN 12424)

(door width from 6000 mm) Max. opening speed

Max. closing speed

Door width up to 6000 mm Class 3, max. 115 km/h Door width over 6000 mm Class 2, max. 100 km/h

0.8 m/s

0.4 m/s

#### Curtain

Spring steel wind lock with lateral twin rollers and tensioning system
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### Emergency opening

#### V 5030 MSL



#### Safety for people and machines

The requirements for work safety and modern manufacturing processes are constantly increasing. Reliable production processes with short downtimes, simple access for operation and maintenance of the manufacturing machines and of course the safety of the employees are all important.

#### Secure monitoring and quick access

The flexible high-speed door with machine protection function fulfils all of these requirements. It protects operating personnel thanks to a monitored complete partitioning of the machine and provides fast access when needed. Safety sensors in the aluminium bottom profile and in the frame reliably transmit the door position to the system control (performance level d). The door can thus open only when the machine is idle and the machine can be operated only when the door is closed.



Safety sensors transmit the door position

Internal door	V 5030 MSL
Size range	
Max. width (LDB)	4000 mm
Max. height (LDH)	4000 mm
Speed	
With standard FU control BK 150	FUEH (up to 95 kg), FU
control AS 500 FU E (from 95 kg)	· · · · · · ·
Max. opening speed	1.5 m/s
Max. closing speed	0.8 m/s
Curtain	
With spring steel wind lock	
Fabric thickness	2.4 mm
Vision panel thickness	4.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow

RAL 2004 Pure orange (optionally as fabric curtain)

RAL 3002 Carmine red

RAL 5010 Gentian blue (optionally as fabric curtain) RAL 7038 Agate grey (optionally as fabric curtain)

#### **Emergency opening**

Emergency crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V, up to 95 kg)

## **V 4014 SEL RW**

### Internal door with SoftEdge for rescue routes





## The internal door for rescue routes with decisive advantages

Thanks to a SoftEdge profile with anticrash system, these high-speed doors are especially safe and economical. People are better protected and damage and downtimes are avoided.

Recommended for use in rescue routes With an expert report and official approval for individual cases, these high-speed doors can be integrated into rescue route planning.

#### Standard equipment

Radar detector for advanced protection in the escape direction, emergency open button.



Radar detector in escape direction as standard

Internal door	V 4014 SEL RW
Size range	
Max. width (LDB)	4000 mm
Max. height (LDH)	4000 mm

Max. opening speed 1.4 m/s
Max. closing speed 0.8 m/s

CurtainWith aluminium profileFabric thickness1.5 mmVision panel thickness2.0 mm

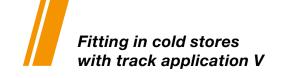
Curtain colours
RAL 1018 Zinc yellow
RAL 2004 Pure orange
RAL 3002 Carmine red
RAL 5010 Gentian blue
RAL 7038 Agate grey

Emergency opening

With standard FU control BK 150 FU E H UPS

## **ISO Speed Cold**

# Fast energy-saving cold store and deep freeze door





#### Fast, airtight and efficient

Thanks to its sections with thermal break and special seals for the building structure and floor, the ISO Speed Cold is the optimum solution for all areas with high temperature differences.

Used as a high-speed door in cold-storage areas or to save energy in production and distribution areas, the ISO Speed Cold remains impervious.

#### With thermal breaks

The ISO Speed Cold features steel sections with rigid foam (PU) with a thermal break on the inside and outside.

Additional lintel and bottom seals help to achieve an excellent thermal insulation value of  $U_P = 0.3 \ W/(m^2 \ K)$ .

#### ThermoFrame as standard

The ThermoFrame separates the frame from the building structure. The thermal break, including additional seals, ensures excellent thermal insulation and provides optimal corrosion protection for the side frame.



Sections with thermal break

nternal door	ISO Speed Cold

#### Size range Max. width (LDB)

Max. width (LDB) 5000 mm Max. height (LDH) 5000 mm

#### Speed

With standard FU control AS 500 FU E Max. opening speed 2.0 m/s Max. closing speed 0.5 m/s

#### Thermal insulation (EN 12424)

For 25 m<sup>2</sup> door size  $U_P = 0.3 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Panel

Foamed with polyurethane

Thickness 80 mm

#### Track Applications

Track application V for fitting within and outside of freezer High-lift track application only for fitting outside of freezer

#### Door leaf colours\*\*

Available in over 200 colours based on RAL. Standard: Grey white, RAL 9002

#### **Emergency opening**

Counter weight Emergency hand chain

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours. Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

### Internal door for fresh and cold logistics up to 5°C



# For cold and fresh foods with insulated curtain for good thermal values

The energy-saving door in internal areas for cold and fresh logistics.

A thermal insulation value of  $U_P = 1.6 \text{ W/(m}^2\text{K})$  is achieved.

## Increased thermal insulation thanks to ThermoFrame

The optional ThermoFrame separates the frame from the building structure. The thermal break, including additional seals, improves thermal insulation by up to 15% and provides optimal corrosion protection for the side frame. The ThermoFrame is easy and quick to fit.



Wind lock



PE foam in curtain pockets

nternal door V 4015 ISC
-------------------------

 Size range
 4000 mm

 Max. width (LDB)
 4000 mm

 Max. height (LDH)
 4500 mm

**Speed**With standard FU control BK 150 FU E H

Max. opening speed 1.5 m/s Max. closing speed 0.5 m/s

Thermal insulation (EN 12424)

 $U_P = 1.6 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Curtain

Curtain pockets with a PE foam infill, 20 mm thick

#### **Emergency opening**

Emergency crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

## V 2515 FOOD L



#### Easy to clean

The side guides in this special version are easy to clean. High-pressure cleaning systems and water are not a problem for the door construction, which is made entirely of stainless steel. No counter weights or springs complicate the cleaning of the frame.

#### Spray-water protected

The operator is completely enclosed in a splash-water protected operator cover made of V2 A stainless steel (protection category IP 65).

The safety light grille complies with protection category IP 67.



The door is supplied with an EPDM seal and safety light grille in the frame as standard.



Easy to clean

Internal door	V 2515 FOOD L	
Size range		
Max. width (LDB)	2500 mm	
Max. height (LDH)	3000 mm	

#### Speed

With standard FU control BS 150 FU E H V2 A
Max. opening speed 1.2 m/s
Max. closing speed 0.5 m/s

#### Curtain

With spring steel in curtain pockets
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### Emergency opening

Optional: automatic door opening via UPS during a power failure (BS 150 FU E H V2A UPS, 230 V)

#### Internal door for supermarkets





#### The completely equipped door

Full equipment with operator and shaft cover, standard light grille and automatic emergency opening via a counter weight (in case of power failure) make this flexible plastic curtain door a safe choice for indoor areas with a high customer frequency.

## Anti-crash system with automatic start-up

Thanks to a durable, light curtain and very flexible bottom part, this door is back in operation within seconds of a crash. This high level of flexibility does away with the need for a closing edge safety device.

#### **FU** control

With a standard FU control BK 150 FU E H the door achieves opening speeds of up to 1.2 m/sec.

#### **Curtain variants**

Anti-static fabric curtain, as standard without vision field. Available on request with an approx. 750 mm high vision panel from 1200 mm above FFL at no surcharge.



350-mm-high light grille concealed in the door guide



Custom printing possible

Internal door	V 2012
Size range Max. width (LDB) Max. height (LDH)	2500 mm 2500 mm

#### Speed

With standard FU control BK 150 FU E H
Max. opening speed 1.2 m/s
Max. closing speed 0.5 m/s

#### Curtain

With spring steel in curtain pockets
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Counter weight with operating current brake

## **V 1401 ATEX**

### Internal door for explosive areas



#### V 1401 ATEX

The high-speed door for explosive areas. Developed, designed and certified in accordance with the following directives: EC Explosion Protection 94/9EC and DIN EN 13463-1.

The control cabinet must always be fitted outside the Ex area.

Internal door	V 1401 ATEX
Size range	
Max. width (LDB)	4000 mm
Max. height (LDH)	4000 mm
Speed	
With standard FU control BS 1	50 FU E
Max. opening speed	1.0 m/s
Max. closing speed	0.5 m/s
Curtain	
With aluminium profile	
Fabric thickness	1.5 mm
Vision panel thickness	2.0 mm
Curtain colours	
RAL 1018 Zinc yellow	
RAL 2004 Pure orange	
RAL 3002 Carmine red	
RAL 5010 Gentian blue	
RAL 7038 Agate grey	
Emergency opening	
Emergency crank handle	

## **V 3015 CLEAN**

#### Internal door for clean rooms, transparent curtain



## Special curtain for pressure differences

Air purification in clean rooms can result in a pressure difference of up to 50 Pa. The fully transparent curtain of this clean room door is tightly integrated in the special side guides. This minimizes air loss (leakage). This enables an optimum design for ventilation systems. A stainless steel cover on the shaft and operator, and welded-on spring steel stabilisation are further characteristics of this door.



Extremely leaktight and fully transparent

	1	
	-	
		4

Curtain tightly integrated in the side guides

Internal door	V 3015 CLEAN
Size range Max. width (LDB) Max. height (LDH)	2500 mm 3000 mm

#### Speed

With standard FU control BS 150 FU E H V2 A
Max. opening speed 1.5 m/s
Max. closing speed 0.5 m/s

#### Curtain

With spring steel in curtain pockets
Fully transparent curtain thickness 4.0 mm

#### Wind lock strip colours

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### Emergency opening

Emergency crank handle Optional: Automatic door opening via UPS in case of power failure (BS 150 FU E H V2 A UPS, 230 V)

#### Internal door for conveyor systems



#### Designed for continual operation

The V 3009 is fitted between the operating sections and the storage areas within the conveyor system and is used to save energy and reduce draughts and noise. The door is designed for a high number of automated opening and closing cycles.

The door control can be integrated in existing PLC systems. A volt-free contact reports the door position (open/closed) to the control.



A vision panel gives insight into the operating procedure

Internal door	V 3009
Size range	
Max. width (LDB)	3500 mm
Max. height (LDH)	3500 mm

With standard control AK E (contactor) Max. opening speed Max. closing speed 0.8 m/s With optional FU control BK 150 FU E H Max. opening speed 1.2 m/s Max. closing speed 0.5 m/s

#### Curtain

With aluminium profile Fabric thickness 1.5 mm Vision panel thickness 2.0 mm

Curtain colours RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### **Emergency opening**

Emergency crank handle

### H 3530

#### Fast horizontal door





## Opens quickly, crashes virtually excluded

Our quickest door for internal applications. The door leaves quickly open to the sides and immediately make the full passage height available. This guarantees fast traffic flow and increases safety, above all for personnel traffic. Despite the fast opening speed of 3 m/sec., soft start and stop are guaranteed by the frequency converter control, which reduces the door's wear.

Further benefits: two opening widths can be programmed for personnel and vehicles. Closing edge safety devices and photocells provide additional safety. In the event of a malfunction, the door can quickly be opened with a hand pulley or automatically during a power failure by using an operating current brake (special equipment).

## The entire operator technology is arranged on the right

in a space-saving manner in 3-sided cladding and only requires minimum headroom.



In the stainless steel version, the door fulfils the hygienic requirements of the food, chemical and pharmaceutical industries.

Internal door	Н 3530
Size range	
Max. width (LDB)	3500 mm
Max. height (LDH)	3500 mm

With standard FU control BK 150 FU E H
Max. opening speed 3.0 m/s
Max. closing speed 1.0 m/s

Curtain
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### Wind lock strip colours

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey

#### Emergency opening

Springs with pull cord

Optional: Springs with operating current brake

## Standard at Hörmann

Intelligent operator and control technology







### Reliable thanks to innovative equipment

Hörmann high-speed doors are up to 20 times faster than conventional industrial doors. Which is why the intelligent operator and control technology is designed for reliable continuous operation. All operators and controls are equipped with plug-in terminals to allow the control circuit boards to be easily changed (control voltage 24 V DC).

### Standard at Hörmann:

### Frequency converter control

High performance frequency converter controls (FU) feature higher speeds and relieve the complete door mechanism which, in turn, extends the service life of the door considerably.

**Door cycle counter** 

**Operation time monitoring** 

Automatic timer (adjustable hold-open phase)

Error display / diagnosis via a 4 × 7-segment display

Service operation setting

### **FU** controls



#### BK 150 FU E H FU control in plastic housing, IP 54, 1-phase, 230 V

#### Operation

Open-Stop-Close membrane push button, 4x 7-segment display to provide information on door functions

#### **Function**

Automatic timer, Adjustable hold-open phase Safety light grille, closing edge safety device (H 3530), stop/reopen

#### Impulse generator

Push button, pull switch, mushroom button, Radar presence detector, slots for induction loop detector and remote control

#### **Extension options**

Main switch, emergency off switch, traffic light, flashing warning light, locking, intermediate stop, extension PCB E FU H stainless steel cabinet IP 65

#### Wiring

Connecting lead 1~230 V, N, PE, fuse 16 A, slow-acting, plug-in connection between door operator and control cabinet, CEE plug, 3-pin with 1 m cable for on-site CEE socket, 16 A

#### **Housing dimensions**

200 × 400 × 200



#### AS 500 FU E FU control in steel cabinet IP 54 three-phase, 400 V

#### Operation

Open-Stop-Close membrane push button, emergency-off button, 4 × 7-segment display for information on door functions, lockable main switch

#### Function

Automatic timer, Adjustable hold-open phase Safety light grille, Closing edge safety device (V 10008, ISO Speed Cold), Stop/reopen

#### Impulse generator

Push button, pull switch, mushroom button, Radar presence detector slots for induction loop detector and remote control

#### **Extension options**

Traffic light, flashing warning light, locking, intermediate stop, extension circuit board R FU X stainless steel cabinet IP 65

#### Wiring

Connecting lead 3~400 V, N, PE, fuse 20 A, slow-acting, plug-in connection between door operator and control cabinet, connecting lead cross section 5 × 2.5 mm² (depending on national standards)

#### Housing dimensions

400 × 600 × 200



#### E FU H / R FU X Extension PCB for controls: BK 150 FU E H (E FU H) AS 500 FU E (R FU X)

E FU H Lock controller, 6 additional switch outputs (1 × 4, 2 × 1 volt-free) 6 additional digital inputs

R FU X Lock controller, 4 additional switch outputs (2 × 2 volt-free) 8 additional digital inputs

#### Compatible door types

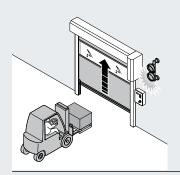
V 4015 SEL R V 5015 SEL V 5030 SEL V 6030 SEL V 6020 TRL (up to 95 kg) V 5030 MSL (up to 95 kg) V 2012 V 4015 ISO L V 9012 L Stacking H 3530 V 3009 V 3015 CLEAN

#### Compatible door types

HS 7030 PU
HS 5015 PU N
HS 5015 PU H
HS 5015 Acoustic PU H
HS 6015 PU V
V 5030 SEL
V 6030 SEL
V 6020 TRL (from 95 kg)
V 5030 MSL (from 95 kg)
V 10008
V 9012 L Stacking
ISO Speed Cold

## **Accessories**

## Safety equipment and control elements



Safety equipment



Warning light Ø 150 mm Red, in plastic housing with mounting strap, IP 65



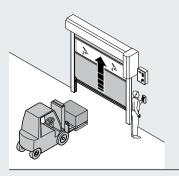
Warning light Ø 150 mm
Red, green,
in plastic housing,
with fitting support,
IP 65



Rotating warning light Red or yellow, in plastic housing, IP 54



Flashing warning light Orange, in plastic housing, IP 65



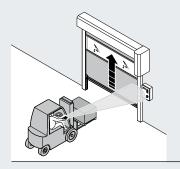
**Control elements** 



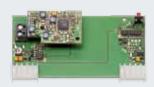
External control element for FUE H For easy operation and programming, can be placed independent from the control, same control buttons as on the control as well as  $4 \times 7$ -segment display

## **Accessories**

## Operating and controlling options



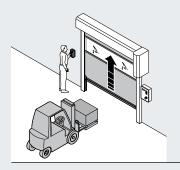
<u>...</u>



Radio remote controls

4-button hand transmitter HS 4

Receiver HER 1 (1-channel) with volt-free relay output in a separate housing without connecting lead or as a plug-in circuit board in the control cabinet



Manually operated impulse generators



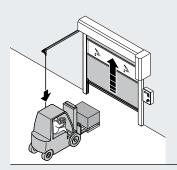
Push button 2 × "Open / Close" Plastic housing, IP 65



Push button 3 × "Open / Emergency-off / Close" Plastic housing, IP 65



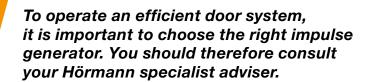
**Mushroom button** With large operating surface Plastic housing, IP 65

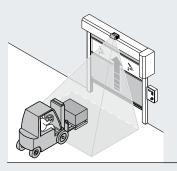


Manually operated impulse generators



Pull switch with plastic pull cord Horizontal or vertical fitting possible, aluminium die-cast housing IP 65, cord length 4 m



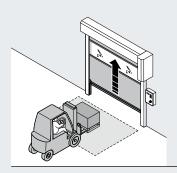




Remote controls

#### Radar / presence detector Comfort

Radar movement and presence detection with infrared detection, fast and targeted automatic door opening, reliable advance protection, up to a height of max. 6 m, in areas with high levels of humidity and in outside areas, only the radar function is available, housing: protection category IP 65





Induction loops

Induction loop detector

1 or 2-channel plug-in print suitable for two separate induction loops, supplied without loop cable

Hee	Internal deer					
Use	Internal door					
0	External door	Maria and an analysis of a second and a second a second and a second a				
Speed	FU control (3-phase)	Max. opening speed approx. m/s				
	FU control (1-phase)	Max. opening speed approx. m/s				
0	DINI FNI 40044 4	Max. closing speed approx. m/s				
Security features	DIN EN 13241-1					
Resistance to wind load	DIN EN 12424					
Resistance to water penetration	DIN EN 12425					
Air permeability	DIN EN 12426					
Transmission of heat	DIN EN 52242 IP					
Acoustic insulation/aluminium panels	DIN EN 52210 dB					
Door sizes	Max. width LDB					
	Max. height LDH					
For fitting dimensions (space requirement)						
Door construction	Self-supporting					
Door leaf counterbalance	Supporting					
Door leaf	Section, double-skinned, 42 mm					
	Foamed door leaf					
Door leaf material / surface	Steel, RAL 9006					
	Wet coating in RAL to choose					
Glazing		Aluminium rail window, anodised aluminium E6 / EV 1				
	Double synthetic panes					
	Triple synthetic panes					
Ventilation grilles	Ventilation cross section dependent o	n size / version (at least 30 %)				
Operator and control	Frequency converter control					
	Connecting voltage	3-phase				
		1-phase				
	Open-Stop-Close button					
	Main switch with all-pole switch-off					
	Fuse protection	3-phase				
		1-phase				
	Protection category for operator and o					
	Emergency-OFF button	3-phase				
		1-phase				
	Closing edge safety device with energ	•				
	Closing zone monitoring	Safety light grille IP 67				
	External route monitoring	Photocell				
		Light grille				
	Door area monitoring	Radar presence detector				
		Induction loop				
	Hold-open phase in sec.					
	Electronic limit switch DES					
Emergency opening	Emergency crank handle					
	Emergency hand chain					
	Counter weight / spring					
	UPS in plastic cabinet (200 × 400 × 20	0) for FU control 230 V, 1-phase (up to 9 m² on request)				
Volt-free contacts / impulse generator / saf	ety devices					

Spiral Door		High-speed sectional doors					
н	S 7030 PU	HS 5015 PU N	HS 5015 PU H	HS 5015 Acoustic H	HS 6015 PU V		
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	Class 4	Class 4	Class 4	Class 4	Class 4		
	Class 3	Class 3	Class 3	Class 3	Class 3		
	Class 0	Class 0	Class 0	Class 0	Class 0		
1.9	5 W/(m²·K)	1.95 W/(m <sup>2</sup> ·K)					
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	6500	5000	5000	5000	6500		
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1 – 2	230 V, N, PE	1 – 230 V, N, PE	_	_	1 – 230 V, N, PE		
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	•	•	•	•	•		
20 A	, slow-acting	20 A, slow-acting	20 A, slow-acting	20 A, slow-acting	20 A, slow-acting		
	, slow-acting	16 A, slow-acting			16 A, slow-acting		
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Use	Internal door					
	External door					
Speed	FU control (3-phase) LDB > 6000 mm	Max. opening speed, approx. m/s				
	FU control (1-phase)	Max. opening speed, approx. m/s				
	Relay control unit (3-phase)	Max. opening speed, approx. m/sec.				
		Max. closing speed, approx. m/s				
Safety equipment	DIN EN 13241-1					
Resistance to wind load	DIN EN 12424	LDB > 6000 mm				
Resistance to water penetration	DIN EN 12425					
Air permeability	DIN EN 12426					
Fransmission of heat	DIN EN 12428					
Acoustic insulation	EN 717-1					
Curtain stabilisation / WS	Aluminium / spring steel					
Door sizes	Max. width LDB					
	Max. height LDH					
For fitting dimensions (space requirement) see th						
Anti-crash / crash-protection	With automatic / manual start-up					
Door construction	Self-supporting					
Curtain	Fabric / transparent	1.5 (0.9) / 2.0 mm				
	Transparent / fabric / transparent	4.0 (<25 mm²)/2.4/4.0 mm				
Door leaf tension	Transparent, labile, transparent	1.0 (120 11111) // 2.17 1.0 11111				
Guide material / surface	Galvanized steel					
adido materiar, barrado	Galvanized steel, coated, in colours based on RAL					
	Polished stainless steel V2 A					
Shaft / operator cover	Straight					
sharry operator cover	30° chamfered (5°)					
Operator and control	Relay control unit					
	FU control					
	Connecting voltage (3-phase)					
	Connecting voltage (3-phase)					
	Open-Stop-Close button  FU control, main switch, all-pole switch-off, 1-phase/3-phase					
		3-phase				
	Fuse protection	3-phase				
		1-phase				
	Protection category	Operator, control				
	Emergency-OFF button	3-phase				
	. 3	1-phase				
	Closing edge safety device	With energy chain				
	Closing zone monitoring	Safety light grille IP 67				
	External route monitoring	Photocell				
		Light grille				
	Door area monitoring	Radar presence detector				
	Boot area monitoring	Induction loop				
	Hold-open phase in sec.	induction toop				
	Electronic limit switch DES					
Emorgonov oponing	·					
Emergency opening	Emergency crank handle					
	Emergency hand chain					
	Counter weight / springs	FILE and and OOO VI death				
	UPS in plastic cabinet (200 × 400 × 200) for	FU CONTROL 230 V, 1-phase				

Flevible	hiah-ei	need door	re

V 4015 SEL R	V 5015 SEL	V 5030 SEL	V 6030 SEL	V 6020 TRL	V 9012 L Stacking	V 10008
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						0.8
1.5	1.5	2.0	2.0	2.0	1.2	-
-	-	-	-	-	0.8	_
0.8	0.8	0.8	0.8	0.5	0.8	0.4
•	•	•	•	•	•	•
Class 0	Class 0	Class 0 / 1 with aluminium bottom profile	Class 2	Class 3	Class (2) / 3	Class (2) / 3
Class 0	Class 0	Class 0	Class 0	Class 0	Class 0	Class 0
Class 0	Class 0	Class 0	Class 0	Class 0	Class 0	Class 0
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4000	5000	5000	5000	6000	9000	10000
4000	5000	5000	6000	7000	6000	6250
Crash-protection	Anti-crash	Anti-crash	Crash-protection	_		_
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					(O)	
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<u>~</u>		0 400 V N DE	·			0 400 V N DE
		3 – 400 V, N, PE	3 – 400 V, N, PE	3 – 400 V, N, PE	3 – 400 V, N, PE	3 – 400 V, N, PE
1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	
•	•	•	•	•	•	•
0/-	0/-	○/●	○/●	0/●	○/●	-/•
-		20 A, slow-acting	20 A, slow-acting	20 A, slow-acting	20 A (10A), slow-acting	20 A, slow-actin
16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	<del>-</del>
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Use	Internal door					
	External door					
Speed	FU control (3-phase)	Max. opening speed, approx. m/s				
	FU control (1-phase)	Max. opening speed, approx. m/s				
		Max. closing speed, approx. m/s				
Safety equipment	DIN EN 13241-1					
Resistance to wind load	DIN EN 12424					
Resistance to water penetration	DIN EN 12425					
Air permeability	DIN EN 12426					
Transmission of heat	DIN EN 12428					
Curtain stabilisation / WS	Aluminium / spring steel					
Door sizes	Max. width LDB					
	Max. height LDH					
For fitting dimensions (space requirement) s	ee the Technical Manual					
Anti-crash / crash-protection	With automatic / manual start-up					
Door construction	Self-supporting					
Curtain	Fabric / transparent	1.5/2.0 mm				
	Transparent / fabric / transparent	4.0 mm				
	Door leaf, PU-foamed 80 mm					
	Curtain pockets with a PE foam infill, 20 mm thick					
Door leaf tension	20.10					
Guide material / surface	Galvanized steel					
duide material/ surface	Galvanized steel, coated, in colours based on RAL					
	Polished stainless steel V2 A					
Shaft / operator cover	Straight Straight					
onant / operator cover	30° chamfered (5°)					
Operator and control	Relay control unit					
operator and control	FU control					
	Connecting voltage (3-phase)					
	Connecting voltage (1-phase)  Open-Stop-Close button					
	FU control, main switch, all-pole switch-off, 1-phase / 3-phase					
	Fuse protection	3-phase				
	ruse protection					
	Protection estages:	1-phase Operator, control				
	Protection category	Operator, control				
	Emergency-OFF button	Mills and annual shading				
	Closing edge safety device	With energy chain				
	Closing zone monitoring	Safety light grille IP 67				
	External route monitoring	Photocell (internal)				
		Light grille				
	Door area monitoring	Radar presence detector				
		Induction loop				
		Hold-open phase in sec.				
	Electronic limit switch DES					
Emergency opening	Emergency crank handle					
	Emergency hand chain					
	Counter weight / springs					
	UPS in plastic cabinet (200 × 400 × 200) for	or FU control 230 V, 1-phase				
Volt-free contacts / impulse generator / safet	v devices					

Flexible high-speed doors for sp	pecial applications
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		Flexible High-s	speed doors for special of	applications	
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		w-acting –	16 A, slov	<del>-</del>	
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Use	Internal door				
	External door				
Speed	FU control (3-phase)	Max. opening speed, approx. m/s			
	FU control (1-phase)	Max. opening speed, approx. m/s			
	Relay control unit (3-phase)	Max. opening speed, approx. m/s			
		Max. closing speed, approx. m/s			
Safety equipment	DIN EN 13241-1				
Resistance to wind load	DIN EN 12424				
Resistance to water penetration	DIN EN 12425				
Air permeability	DIN EN 12426				
Transmission of heat	DIN EN 12428				
Curtain stabilisation / WS	Aluminium / spring steel				
Door sizes	Max. width LDB				
	Max. height LDH				
Fitting dimensions (space requirement)					
Anti-crash / crash-protection	With automatic / manual start-up				
Door construction	Self-supporting				
Curtain / door leaf	Fabric / transparent	1.5/2.0 mm			
	Transparent	4.0 mm			
Curtain / door leaf tension					
Guide material / surface	Galvanized steel				
	Galvanized steel, coated, in colours based on RAL				
	Polished stainless steel V2 A				
Shaft / operator cover	Straight				
	30° chamfered (5°)				
Operator and control	Relay control unit				
	FU control				
	Connecting voltage	3-phase			
		1-phase			
	Open-Stop-Close button				
	FU control, main switch, all-pole switch-off, 1-phase / 3-phase				
	Fuse protection	3-phase			
		1-phase			
	Emergency-OFF button				
	Closing edge safety device	With energy chain			
	Closing zone monitoring	Safety light grille IP 67			
	External route monitoring	Photocell (internal)			
		Light grille			
	Door area monitoring	Radar presence detector			
		Induction loop			
	Hold-open phase in sec.				
	Electronic limit switch DES				
Emergency opening	Emergency crank handle				
- , ,	Emergency hand chain				
	Counter weight / springs				
	UPS in plastic cabinet (200 × 400 × 200	)) for FU control 230 V. 1-phase			
Volt-free contacts / impulse generator / safety d	· · · · · · · · · · · · · · · · · · ·	,			

Flexible	high-speed	doors t	for s	pecial a	anr	olications

V 3015 CLEAN	V 3009	V 1401 ATEX	H 3530
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Class 0	Class 0	Class 0	Class 0
Class 0	Class 0	Class 0	Class 0
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3000	3000	4000	3500
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(●)	0	0	0
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-	3 – 400 V, N, PE	-	_
1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE
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-	20 A, slow-acting	-	_
16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting
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## Hörmann product range

### Everything from a single source for your construction project

#### Sectional doors

These space-saving door systems can be adapted to different industrial facilities using various track applications. Hörmann offers you tailored solutions for every application.

### 2 Rolling shutters and rolling grilles

Thanks to a simple construction with just a few components, rolling shutters are both economical and sturdy. Hörmann supplies rolling shutters in widths and heights of up to 11.75 m and 9 m respectively, or as special doors which are even larger.

#### 3 High-speed doors

Hörmann high-speed doors are used both inside and as exterior doors to optimise the flow of traffic, improve room conditions and save energy. The Hörmann programme includes vertically and horizontally opening transparent doors with flexible curtains.

#### 4 Loading technology

Hörmann offers you complete loading systems for the logistics sector.

The advantages: reliable planning, dependable execution of construction work and high functionality thanks to precisely matched components.

# 5 Fire and multi-purpose sliding doors

Hörmann can provide you with single or double-leaf sliding door solutions suitable for all areas and required fire protection classes, or without fire protection.

# 6 Multi-function doors and reinforced internal doors

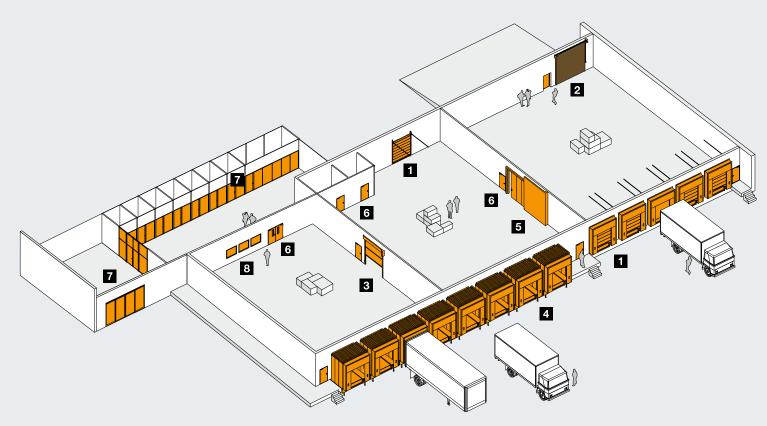
Hörmann multi-function doors and reinforced internal doors are suitable for indoor and outdoor use. Our single and double-leaf doors can be used wherever robust door elements are required. With numerous additional functions, such as fire and smoke protection, acoustic insulation or burglar protection.

#### **7** Box frame parts

For areas in which appearance is important, such as administrative buildings, Hörmann offers you fire and smoke protection doors as well as steel and aluminium fixed glazing and automatic sliding doors, also suited for special fire protection requirements.

#### 8 Visibility windows

Hörmann visibility glazings are used as windows or room-high elements to provide more light and better visibility.





# Quick service with testing, maintenance and repairs

Our extensive service network means that we are always nearby and at your service around the clock.

















### Hörmann: Quality without Compromise



Hörmann is the only manufacturer worldwide that offers you a complete range of all major building products from one source. We manufacture in highly-specialised factories using the latest production technologies. The close-meshed network of sales and service companies throughout Europe, and activities in the USA and China, make Hörmann your strong partner for first-class building products, offering "Quality without Compromise".

GARAGE DOORS

OPERATORS

INDUSTRIAL DOORS

LOADING EQUIPMENT

HINGED DOORS

DOOR FRAMES

