

**Folding sliding shutters – automatic flush front.**

**Automated hardware system for flush-front folding sliding shutters weighing up to 30 kg (66 lbs.).**

**Description**

Hawa Frontego 30 Matic is a motorised hardware system for folding sliding shutters. A well-thought-out suspension system enables a flush-front construction and extensive freedom of design for the façade. A variety of mounting options leave virtually no wish unfulfilled. The automatic hardware system folds up to six sliding shutters and parks the package to one side at 90° to the slide axis. The drive system is powered by a brushless electric motor with a high-quality gear system and a proven drive belt; it is both wear-resistant and durable. The power supply unit (to be connected on site by others) with integrated feed and distribution and the Hirschmann plug do not need any additional connection cables. The electrical installation therefore corresponds to the usual standard for sunblind designs incorporating commercially available operating elements.

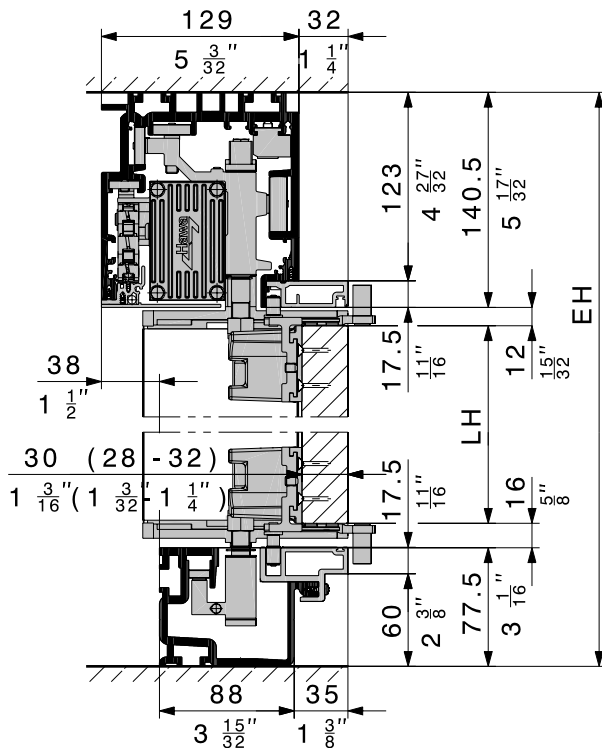
**Applications**

Wherever sun and privacy screen are an integral aspect of façade design, including façades with a high proportion of glass, even when space is at a premium, for instance in schools, hotels, public buildings, office and administration buildings, low-energy houses and for creative and impressive façades on private homes.

**Features of the Hawa Frontego 30 Matic**

- Drive unit: CE tested
- Hardware system developed in accordance with DIN EN 13659, which regulates performance and safety requirements as well as wind load resistance (certified for Class 6, tested for Class 8), durability (20,000 cycles, tested for Class 3)
- Protection and safety measures on the basis of DIN EN 12453
- The hardware system for automatic folding sliding shutters is suitable for purposes up to protection class 3 in accordance with VFF pamphlet KB.01
- Very high corrosion resistance; suitable for coastal areas; materials and coatings tested during a 1,000-hour salt spray test in accordance with DIN EN 9227
- Folding sliding shutter weight: max. 30 kg (66 lbs.)
- Folding sliding shutter width: 300–600 mm (11<sup>13</sup>/<sub>16</sub>"–11<sup>5</sup>/<sub>8</sub>") (uniform for each installation)
- Folding sliding shutter thickness: 28–32 mm (1<sup>1</sup>/<sub>8</sub>"–1<sup>9</sup>/<sub>32</sub>")
- Designs: 2, 4 and 6 leaves, left or right hand application
- Symmetrical and asymmetrical installations are freely combinable
- Ceiling, window lintel, wall and façade mounting
- Folding sliding shutters and the top tracks and bottom guide channels can be installed from the inside or outside
- For folding sliding shutters made of wood, metal or fabric
- Folding sliding shutters can be locked top and bottom in any position
- Robust, burglar-deterrent engineering and self-locking drive
- Folding sliding shutters form a flush front when closed

Drive unit technical details: → page 32



Subject to modification. Metric specifications are exact. Inches are approximate.

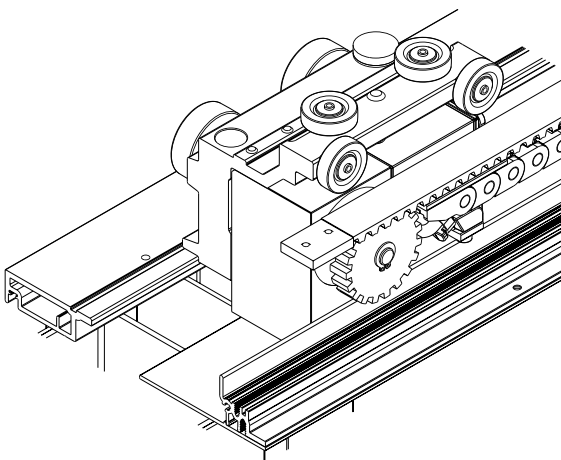
### Hawa Frontego 30 Matic drive system

Hawa Frontego 30 Matic moves folding sliding shutters at an average speed of 55 mm/s.

The intelligent control system was designed specifically for folding sliding shutters and enables them to be slowly accelerated up to an ideal speed and then gently decelerated and stopped. This keeps noise levels down and puts less strain on drive components. Commissioning is as convenient as it is simple: manual addressing is unnecessary thanks to the automatic detection of components such as the number of leaf pairs and left or right hand installation. Manual configuration using the diagnosis box is also possible.

### Caution: Not permitted for escape routes

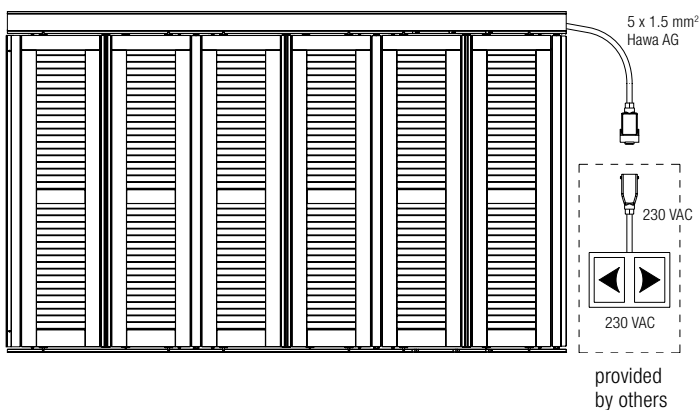
Escape route will be blocked if power supply fails when shutters are closed.



The drive and trolley form a compact unit

### Addressing and controlling the system

The systems are addressed in the same way as rolling shutter systems and operated via commercially available sunblind switches. Push-button operation is also possible for walk-in systems.



### Technical details Hawa Frontego 30 Matic

• Drive unit:	CE tested
• Power supply:	100 VAC to 240 VAC
• Rated voltage:	28 V
• Pre-fuse (max.):	16 A
• Overvoltage category:	II
• Temperature range for storage:	-25 °C to 60 °C
• Temperature range for operation:	-20 °C to 60 °C
• Relative humidity:	20 % to 98 %
• Degree of contamination:	1
• Protection class:	IP54
• Speed (max.):	70 mm/s
• Average speed:	55 mm/s
• Static continuous drive force (max.):	150 N
• Static peak drive force (max.):	250 N (Anfahren bei Wind)
• Average drive power consumption:	20 W
• Power consumption in standby mode:	< 5 W
• Parameterisation:	automatic during hardware commissioning or manual using the diagnosis box

### Type label

Every drive and power supply unit has a type label.

#### HAWA-Frontego 30/matic



Art.Nr. 23363  
 Kontakt [www.hawa.ch](http://www.hawa.ch)  
 SerieNr. XXXXX Bj: 20ZZ  
 Charge 20ZZ/YYYYY  
 100-240 VAC, 50/60 Hz, 60 W, IP54  
 Betriebstemperatur -20 °C bis +60 °C



#### HAWA-Frontego 30/matic



Art.Nr. 23364  
 Kontakt [www.hawa.ch](http://www.hawa.ch)  
 SerieNr. XXXXX Bj: 20ZZ  
 Charge 20ZZ/YYYYY  
 Antriebskraft max. 250 N  
 28 VDC, 50 W, IP54  
 Betriebstemperatur -20 °C bis +60 °C



### Commissioning box

The commissioning box for the Hawa Frontego 30 Matic is available as an option and enables simple commissioning via the main cable and Hirschmann plug.

### Diagnosis box

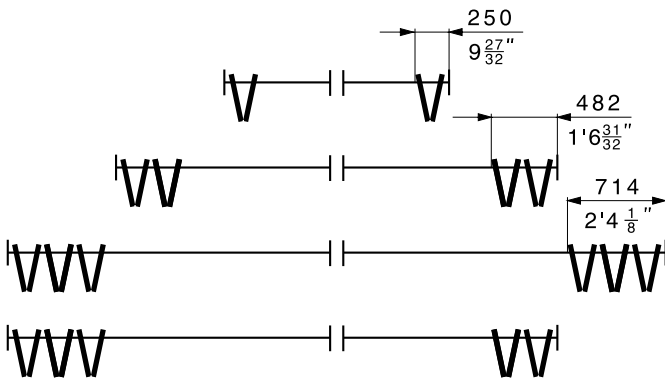
The diagnosis box for the Hawa Frontego 30 Matic is an option and offers the following benefits:

- Read out of important operating data such as operation and run-time, firmware version, error messages, etc.
- Firmware updates
- System operation

**Folding sliding shutters**

The Hawa Frontego 30 Matic stands for freedom of design in façade construction. The folding sliding shutters form a flush front with the façade when closed to conceal the top tracks and bottom guide channels. Shutters can be made of different materials such as metal, wood or fabric.

The number of shutters per system is limited to six leaves, or three pairs. The option to design left or right hand installations allows for any combination of symmetrical and asymmetrical systems. Every sub-system can be designed with a different folding sliding shutter width.



**Open folding sliding shutters**

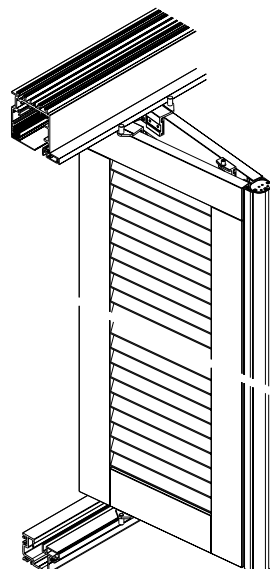
The folding package stands sideways, slightly opened, at 90° to the sliding axis. Guide width of folding packages (including wall connection) for left-hand or right-hand systems with a maximum shutter thickness of 32 mm (1 1/4 inches):

- 2 panels: 176 mm (6 15/16 inches) (+74 mm (2 29/32 inches))
- 4 panels: 408 mm (1'4 1/16 inches) (+74 mm (2 29/32 inches))
- 6 panels: 640 mm (2'1 7/32 inches) (+74 mm (2 29/32 inches))

57 mm (2 1/4 inches) need to be added for right-hand partial systems that are a component of an overall symmetrical or asymmetrical system. (The driver is the protection profile actuator).

**Folding sliding shutters in the wind**

Wind is an unavoidable element of façade construction and worthy of special attention, especially in connection with folding sliding shutters. Hawa Frontego 30 Matic is able to resist strong wind pressure both when open and closed thanks to integrated wind supports.

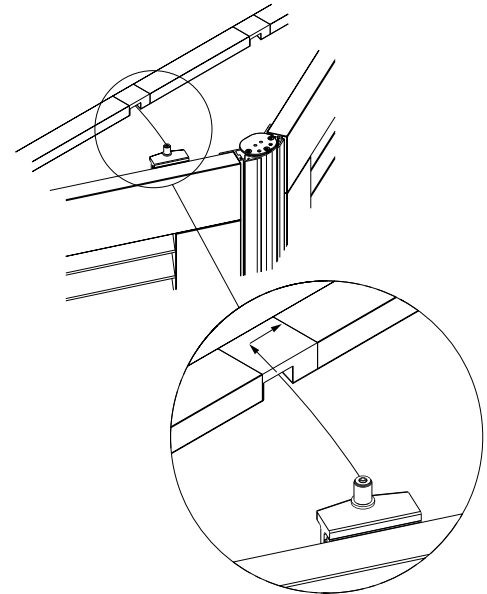


The slightly open folding paket resists even the most adverse wind conditions.

**Security and locking**

Hawa Frontego 30 Matic is a tried and tested, reliable system offering the greatest possible security.

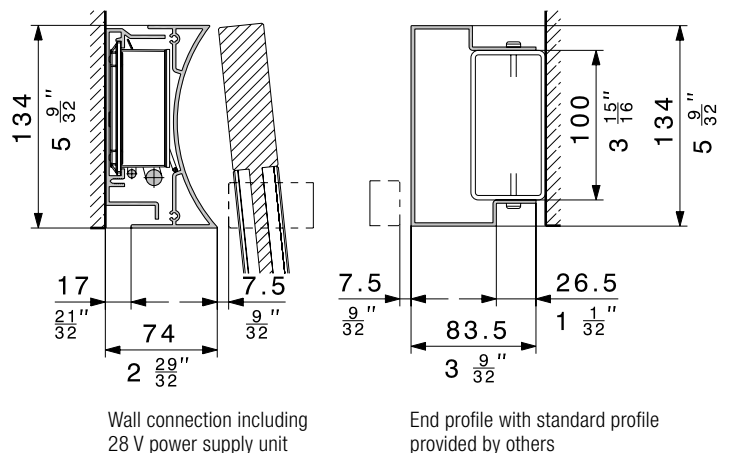
- The system stops and reverses when it encounters an obstacle
- Robust, burglar-deterrent engineering and self-locking drive
- Optional integration of sun and wind detectors
- Shutters can be blocked in any position top and bottom
- The system is automatically locked when in the closed position



The entry pieces lock the system firmly when it is closed

**Wall connection and opposite side**

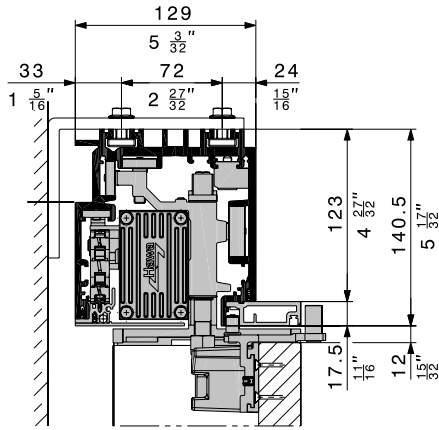
The wall connection profile has room for the 28 V power supply unit; together with the one-sided screen profile it provides for a high degree of security as well as protection against crushing and light intrusion. An optional end profile for the opposite side in combination with a standard profile (provided by others) compensates structural differences in dimensions to achieve a uniform façade appearance.



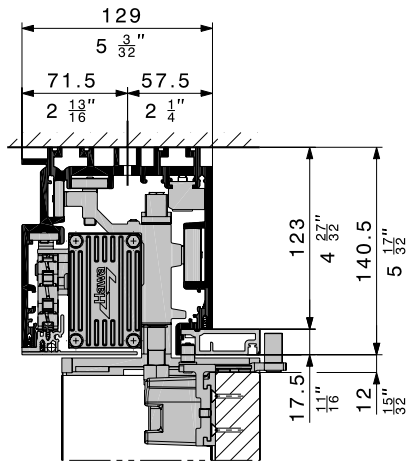
Subject to modification. Metric specifications are exact. Inches are approximate.

**Top track**

The top track for the Hawa Frontego 30 Matic is designed for ceiling and wall mounting. Attachment points are required at least every two metres. The top track is easily installed with hammer head bolts (28/15) thanks to integrated T-grooves. Drilling the top tracks to anchor sleeves is also a convenient fastening method.



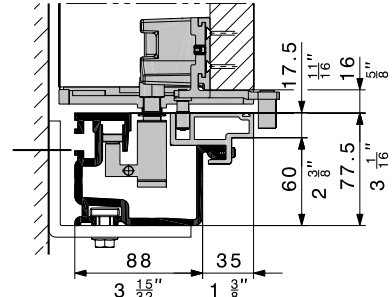
Wall mounting with brackets and hammer head bolts provided by others



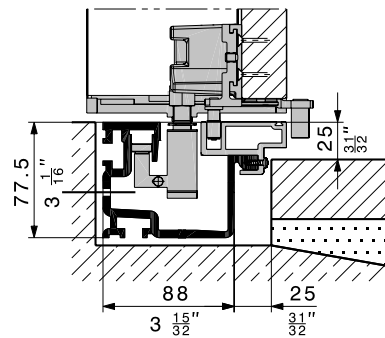
Ceiling mounting with anchors

**Bottom guide**

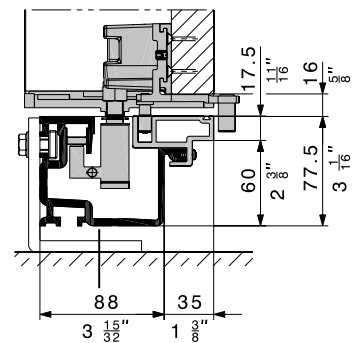
The bottom guide is designed for either wall mounting or countersinking in the floor. A removable floor plate can be used to reduce the distance between floor and guide channel. Attachment points are required at least every two metres. The guide channel is easily installed with hammer head bolts (28/15) thanks to integrated T-grooves. Drilling the guide channels to anchor sleeves is also a convenient fastening method. The guide channel is crush-resistant and therefore safe and stable to stand on.



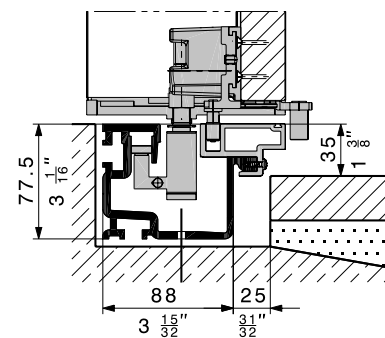
Wall mounting with brackets and hammer head bolts provided by others



Wall mounting with anchor, removable floor plate



Floor mounting with brackets and hammer head bolts provided by others



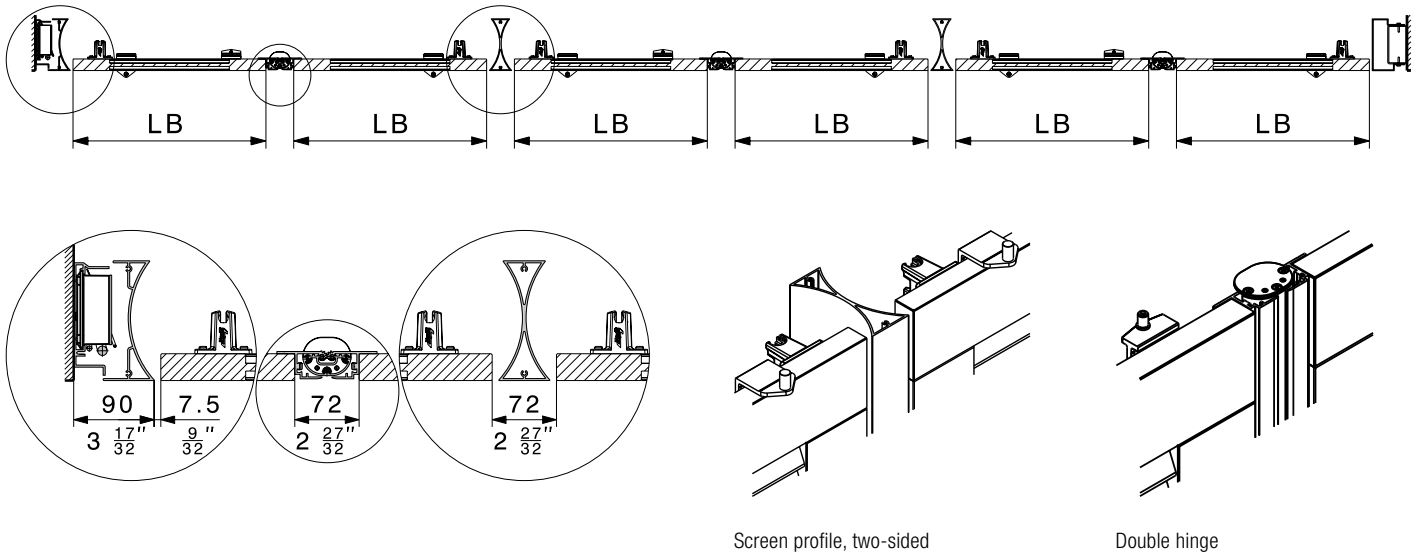
Floor mounting with anchor, fixed floor plate

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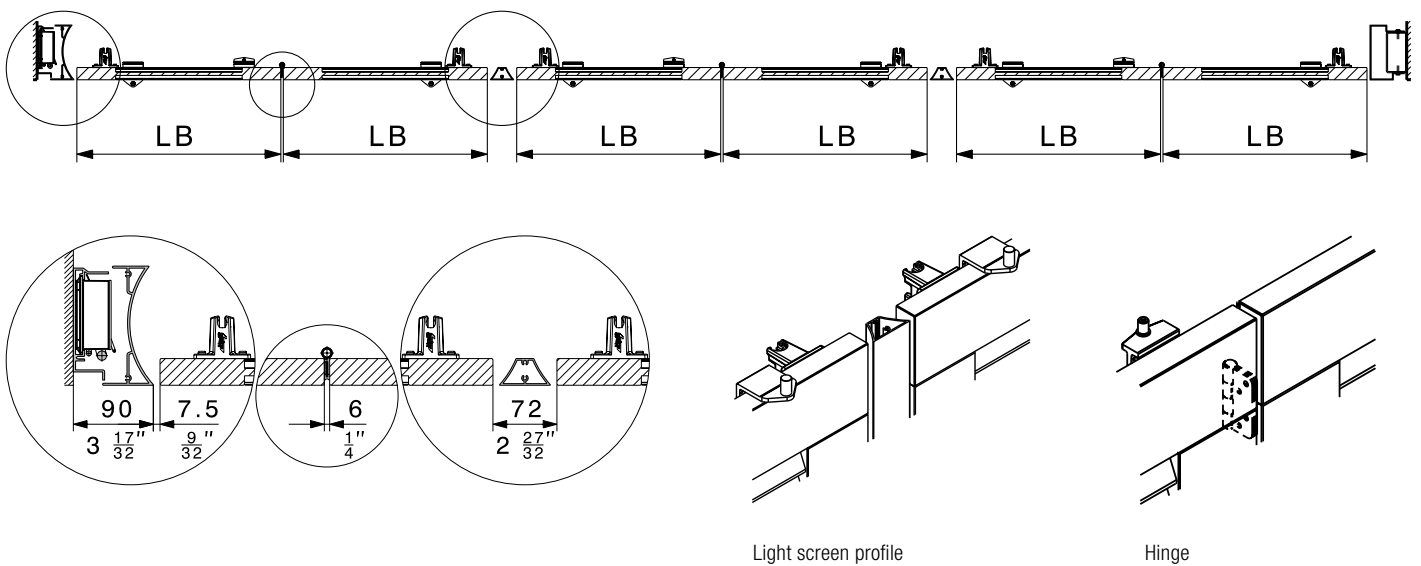
**Screen profile, double hinge and hinge**

The screen profile not only optimises shading but also provides the best possible crush protection in conjunction with the double hinge for the greatest possible crush protection for walk-in systems. The economically favourable hinges and light screen profiles can be used for non-walk-in systems. In the interest of a uniform façade appearance, however, walk-in and non-walk-in systems should not be combined.

**Walk-in system**



**Non-walk-in system**



Subject to modification. Metric specifications are exact. Inches are approximate.

### Proof of resistance to wind/climatic impact

Hawa Frontego 30 Matic was tested and certified by ift Rosenheim/ Germany as follows:

- System: 6 panel, guided
- Folding sliding shutter weight: 30 kg (66 lbs.)
- Folding sliding shutter dimensions: 550 mm x 2322 mm\*
- System dimensions: 3620 mm x 2610 mm

\* The test was carried out with corrected wind loads for a maximum folding sliding shutter size of 600 mm x 3200 mm.

### Resistance to wind loads

- Test report 11-002875-PR01
- Class 6\*
- ift Rosenheim, 17 January 2013

\* Tested for Wind Class 8; not a wind resistance class as per product standard.

### Resistance to dynamic wind loads

- Test report 11-002875-PR01
- Angle of incidence 90°, shutters closed: 35 m/s (approx. 126 km/h = approx. 78 miles/h)\*
- Angle of incidence 0°, shutters open: 35 m/s (approx. 126 km/h = approx. 78 miles/h)\*
- ift Rosenheim, 17 January 2013

\* Maximum wind speed at the test institute.

### Wind classes

Wind class	1	2	3	4	5	6	[8] <sup>(1)</sup>
Wind speed in m/s	9.0	10.7	12.8	16.7	21.0	25.6	35.0
Wind speed in km/h	32.5	38.5	46.0	60.0	76.0	92.0	126.0
Rated test pressure in accordance with SN EN 13659 N/m <sup>2</sup>	50	70	100	170	270	400	750
Safety test pressure in N/m <sup>2</sup>	75	100	150	250	400	600	1125
Wind strength in accordance with Beaufort	5	6	7	8	9	10	12

<sup>(1)</sup> Not a wind resistance class as per product standard.  
Certified by ift Rosenheim..

### Functionality test under climatic impact

- Test report 11-002875-PR01
- Stress test 1: 5 cycles -20 °C / +60 °C
- Stress test 2: 5 cycles room temperature / +70 °C (irradiation)
- ift Rosenheim, 17 January 2013

### Test in accordance with VFF pamphlet KB.01

Hardware system for power-operated folding sliding shutters in accordance with VFF pamphlet KB.01.

- Test report 13-001578-PR02
- Protection class 3 suitable for uses in accordance with VFF pamphlet KB.01
- ift Rosenheim, 7 October 2013

### Planning/installation

Advice and installation through authorised installers.  
Please contact Hawa for further information.