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| **FIXVENT® MONO AK/UT *EVO***Renson Ventilation, IZ 2 Vijverdam, Maalbeekstraat 10, 8790 Waregem – BelgiëTel. +32 (0)56 62 71 11, fax. +32 (0)56 60 28 51, info@renson.be www.renson.eu |

**Product characteristics** (red marked text can be removed in function of your choice)

**Box**

* Box height is always 132 mm
* 5 versions of box depths available (by step of 30 mm) and applicable for window depths of:

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| **Type** | **Box depth (mm)** | **Window depth (mm)** |
| Small | 167 | 50 - 94 |
| Medium | 197 | 95 - 124 |
| Large | 227 | 125 - 154 |
| X-Large | 257 | 155 - 184 |
| XX-Large | 287 | 185 - 215 |

* The uPVC box is finished (on the visible, interior side) with an aluminium profile, with a fixed height of 118 mm
* The box is entirely made of multi-chamber PVC profiles and finished with aluminium profiles
* The aluminium profiles are manufactured from aluminium alloy AlMgSi0,5
* anodized (20 micron)
* powder-coated (60-80 micron)
* The box is provided with the female part of the electric connection (Connect & Go-technology).
* The box is provided with an internal air channel that guides the incoming air towards the inside. This channel always has the same passage, which guarantees an unchanged airflow, whatever the diameter of the fabric roller tube and/or the height of the screen
* The controllable, aluminium interior ventilation flap deflects the incoming air upwards: coanda-effect
* The airflow is strictly separated from the fabric by means of an internal flap above the fabric roller tube
* When closing the ventilation flap, the integrated self-regulating plastic flap also closes automatically (in order to block the incoming airflow)
* A brush is provided beneath the fabric roller tube, near the box entrance, to prevent dirt accumulation in the box
* Insect mesh inside the box (2,9 x 23,2 and 2,9 x 12,3mm)

**Installation**

* The system is installed in front of a rear, closed structure (such as a window)
* The system is easily installed onto the window profile by means of the ‘Slide’ principle:
	+ simply slides onto the window profile as one piece (by means of the mounting profile) and screwed afterwards
	+ can be secured using dowels or screws at the top of the uPVC profile
* The uPVC box is finished by aluminium profiles on the outside and on the inside
* The aluminium interior profile is simply clipped onto the uPVC box, and has the same look and feel as the equivalent product without ventilation (only sun protection)
* The integrated “Connect & Go-technology” makes it possible to first install the box and the side channels
* When installing the fabric roller (roller tube + screen), the electronic connection is made
* The fabric roller can be (un)installed easily after removal of the front profile (interior side); from this sight of view the position of the motor left or right is defined
* Strength and stiffness of the box after installation: the box is designed with double-walled profiles which results in

minimal deformation under heavy load (conform standard STS52.0)

**Technical characteristics**

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| --- | --- | --- | --- | --- | --- |
|  | **Small** | **Medium** | **Large** | **X-Large** | **XX-Large** |
| Airflow |
| Equivalent Area |  |
|  *Fixvent® Mono AK****evo*** | 18324 mm²/m |
|  *Fixvent® Mono UT****evo*** | 19724 mm²/m |
| Q at 1 Pa |  |
|  *Fixvent® Mono AK****evo*** | 12,8 l/s/m |
|  *Fixvent® Mono UT****evo*** | 15,5 l/s/m |
| Acoustic and thermal comfort |
| sound reduction D*new*(C;Ctr) in open position |  |  |  |  |  |
|  *Fixvent® Mono AK****evo***  | 33(0;-2)dB | 35(0;-3)dB | 36(-1;-4)dB | 37(-1;-4)dB | 40(-1;-4) dB |
|  *Fixvent® Mono UT****evo***  | 33(0;-2)dB | 35(0;-3)dB | 36(-1;-4)dB | 37(-1;-4)dB | 40(-1;-4) dB |
| U value (W/m²K) |  |  |  |  |  |
|  *Fixvent® Mono AK****evo*** | 1,47 | 0,98 | 0,80 | 0,77 | 0,72 |
|  *Fixvent® Mono UT****evo*** | 1,47 | 0,98 | 0,80 | 0,77 | 0,72 |

* For a good acoustical insulation special acoustic foam cells are used
* Self-regulating (as from 2 Pa for standard version – as from 10 Pa for UT version)
* Air leakage at 50Pa: <3% in closed position
* Water tightness:
	+ Ventilation flap in open position: up to 150 Pa
	+ Ventilation flap in closed position: up to 1500 Pa

**Visual comfort**

* Interior finishing:
	+ aluminium interior profile runs against the end caps (with plastering profiles)
	+ in case of a coupled screen, the interior profile can be continuous in 1 piece
	+ in case of an aluminium profile > 2500mm, the ventilation flap is split into 2 identical parts. A transparent middle piece is inserted between the two flaps to give a neat finish.
* All visible aluminium profiles (box, side channels and bottom rail) can be anodised (20micron) or powder-coated (60-80micron). The end caps are made of ASA polymer and are colourfast, and weather and UV-resistant.
* The interior end cap is powder-coated in the same colour as the aluminium interior profile; the exterior end cap is powder-coated in the same colour as the aluminium exterior profile.
* The welded horizontal seam (on the lower edge of the fabric) disappears entirely in the bottom bar. In case of a closed position of the screen, this results in a maximal view from inside to the outside.

**Fabric roller tube**

* The roller tube wit fabric groove is made of galvanized steel
* The fabric roller tube has a recessed fabric groove to limit compression of the fabric strap
* The fabric roller tube is fitted with patented, cone-shaped end pieces (conical) to compensate for the thicker ends of the symmetrical zip
* The fabric roller is provided with the male part of the electrical connection (Connect&Go- technology). This allows for the fabric roller to be installed/uninstalled easily
* The fabric roller can be removed from the front of the box, which will define the position of the motor left or right.

**Fabric**

* All screens are made from one piece of fabric unless the height is larger than the width of the fabric roller. A welded horizontal seam is then needed.
* The vertical borders are fitted with a symmetrical yellow zip, therefore the fabric is windproof in the side channel.
* The zip is high-frequency welded, always on the less visible side.

 ● **Glass fibre fabric (semi-transparent):** (Fire class M1)
 - Weight: ± 535-620 gr/m², thickness: 0,53-0,80 mm

 **● Polyester (semi-transparent):** (Fire class M1)
 - Weight: ± 380-420 gr/m², thickness: 0,43-0,45 mm

 **● Polyester blackout fabric:**
 (Fire class M2)
 - Weight: 650 gr/m², thickness: 0,60 mm

**Dimensions**

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| --- | --- | --- | --- |
| *Semi-transparent fabric* | **Maximal width** | **Maximal height** | **Maximal surface** |
| single (1 screen - 1 manual control) | 4000 mm | 3000 mm | 7,5 m² |
| single (1 screen - 1 motor control) | 4000 mm | 3000 mm | 12 m² |
| coupled (2 parts - 2 motors) | 6000 mm | 3000 mm | 18 m² |

 \* each part meets the conditions of 1 part

|  |  |  |  |
| --- | --- | --- | --- |
| *Blackout fabric* | **Maximal width** | **Maximal height** | **Maximal surface** |
| single (1 screen - 1 manual control) | 1800 mm | 3000 mm | 5,4 m² |
| single (1 screen - 1 motor control) | 1800 mm | 3000 mm | 5,4 m² |
| coupled (2 parts - 2 motors) | 3600 mm | 3000 mm | 10,8 m² |

 \* each part meets the conditions of 1 part

**Side channels**

* Side channels are made of extruded aluminium profiles
* Side channel (S) (in 2-parts): W 47mm x D 65mm
* Side channel S + in-depth profile U (W 47mm x D 30mm) for installation of an insect mesh (fixed/sliding) between fabric and window + horizontal tube profile below the box in-between the in-depth profiles
* Coupling side channel (K) (in 3-parts): W 58 mm x D 65 mm
* Coupling side channel K + in-depth profile U (W 58mm x D 30mm) for installation of an insect mesh (fixed/sliding) between fabric and window + horizontal tube profile below the box in-between the in-depth profiles
* The side channels are screwed directly on the window. The screws are not visible from the front, and the side channels can be hidden for 2/3 behind the window fitting (in case of completely hidden side channels,

it is advisable to take this into account during concept phase)

* The side channels, along with the weighted bottom rail, provide the ideal guide for the fabric when the fabric moves up and down
* The box is fixated on the side channels is by means of pins in the endcaps that fit into the hollow chambers of the side channels.
* In each side channel we have integrated a HPVC inner rail with a coextruded wear-resistant top coating (Smooth technology), which consists of Neoprene buffer zones (60 mm long), in compensation to wind gusts. The symmetrical yellow zip, which is welded on the fabric, slides in the HPVC inner rail. In this way the symmetrical yellow zip remains ‘fixed’ in the screen. In case of correct installation, enough tolerance is foreseen between the fabric, the aluminium side channels and the HPVC inner rail

**Bottom rail**

* The bottom rail is made of extruded aluminium and is weighted with galvanized steel bars
* The seam is hidden in the bottom rail
	+ Dimensions bottom rail: H 50 mm x D 30 mm (excl. darkening strip)
	+ Weight bottom rail: 0,90 kg/lm
	+ Weight of bar: W 15 mm x H 25 mm = 3,12 kg/lm
* The bar is covered with PE foam to prevent contact between aluminium and steel
* The bottom rail is provided with plastic end pieces. Available in 4 colors: white/grey/black/creme.

**Guide system**

**Smooth-technology**

* This system provides the guide for the bottom rail and the fabric
* Thanks to the patented Smooth-technology, the screen results in a smooth and quiet operation. The uPVC inner rail has a patented coextruded wear resistant top coating:
	+ guarantees a tensioned fabric with less wrinkles
	+ does not need yearly maintenance with a lubricant

**Control**

* Control ventilation flap:
	+ Rod:
		- Fixed or removable
		- Available in white, creme, black
	+ Motorized: 24VDC motor
* Control screen: manual control or motorized (230 VAC tubular motor, without manual override)
* The connection is included in the sun protection set. The power supply and all wiring are included in the electrical set.
* Cable standard with a UV resistant jacket (RR-F/RN-F).
* Detecto® Rensonmotor Safety First
	+ Electronic motor
	+ Safe and durable system by means of obstacle detection
	+ Safe and easy to install thanks to automatic end point recognition
	+ End points are automatically reinstalled to ensure perfect fabric tension

**Connect & Go-technology**

* The motor connector of the fabric roller tube contains the male part, the corresponding side bracket contains the female part of the electrical connector.
* One side of the fabric roller contains the motor pin, the other side contains the slider pin
* When the fabric roller is placed in the box, the sliders move in the straight guide profile of the left and right end cap
* In this way the male pin part perfectly corresponds with the female pin-part
* A quick and easy installation is possible due to this patented electrical connector

**Click & Safe system**

* Easy installation/maintenance thanks to the clipping-shaped end caps, ensuring a well-secured installation without screwing

**Guaranty**

* 10 year guarantee on all coatings of aluminium elements
* 7 year guarantee on the Fixscreen-technology:
	+ zip remains in side channel
	+ optimal adhesion of zip to fabric
* 5 year guarantee on any defects in this product occurring during normal use and with regular maintenance
* 5 year guarantee on gloss (coating)
* 5 year guarantee on the electronic control
* 5 year guarantee on the fabric collection

**Wind class**

* This screen meets the European standard EN13561 (compliant to wind resistance class 3)
* Fixscreen wind resistance: guaranteed up to 130 km/h when closed
* The wind resistance in closed position is available upon request for screens which do not fulfill the standard dimensions
* Wind tunnel test report ‘Force Technology’ institute (N° 113-25809): wind resistance guaranteed up to 127 km/h when closed (tested for a screen of 3000 mm x 3000 mm)

**Standards and certificates**

* This product is manufactured according to, complies with and/or has been tested according to: EN 13561
* EU declaration of conformity - in compliance with the following EC directives:
	+ Machinery Directive 2006/42/EC
	+ Low Voltage Directive 2014/35/EU
	+ EMC Directive 2014/30/EU
* Declaration of performance (DOP-2015SC0002)