

Technical Data Sheet –

Façade Louvre Blade – Residential (FLB-R)



Façade Louvre Blade – Residential (FLB-R) are smoke vent and air supply louvres used in natural smoke and heat exhaust ventilation systems (nSHEVS).

Specific Features

- Fully certified to BS EN12101-2
- Available in a wide range of sizes and blade options
- Opens to 85° within 60 seconds
- Consumes minimal energy during operation
- High resistance to weather and wind load
- When open is not a fall hazard
- Sound reduction with acoustic insulation up to 48dB RW
- Impact resistant to DIN 18032-3
- Barrier load tested to BS 6180:2011
- Anti-Trapping actuator provides protection from injury

Product Description

Mounted in façades and end of corridors, Façade Louvre Blade – Residential (FLB-R) smoke vents exhaust smoke and heat from a building allowing escape routes to be kept clear of smoke and are fully certified to BS EN12101-2. They may also offer inlet air and comfort ventilation. They are available in a wide range of louvre glazing options and control systems and are particularly suited to apartment and commercial buildings. They are fitted with an anti-trapping actuator providing protection from injury and offer a high resistance to weather and are therefore suited for use on exposed and high wind areas. They provide good security and do not create a fall hazard when open.

The FLB-R louvre incorporates a thermally broken aluminium framework. The frame sections are 40mm wide and 77mm deep, with mitre joints and are manufactured from thermally broken aluminium. All aluminium is polyester powder coated to a standard RAL colour. Glazing options include a 30mm thick toughened inner/ laminated outer double glazed blades with argon filled cavity and warm edge spacer; or triple glazed for increased U-value.

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Alternatively they are available as solid insulated blades which may be mill finish aluminium or powder coated to any RAL colour. They are installed vertically and available with a wide range of adaptors for installation into refurbishment situations as well as new build.

The actuators are 24V DC, 1.2 Amps and mounted on the internal top right hand and have a traction force of 1400N and with an IP20 protection rating. They are supplied as standard with built in anti-trapping feature for protection against injury. They consume minimal energy during opening and closing.

Optional Features

- Vertical frame connection detail for continuous vertical louvres for high atriums or feature glazing
- Security bars may be installed to reduce the opening width to 100mm to achieve guidance of approved Document K
- A wide range of glass to achieve specific Light Transmission (LT) and Solar Gain (g-value)
- A range of aluminium cills are available to enable units to be installed in masonry facade and maintain weathering detail

Thermal transmission

Values below are calculated centre pane U-values unless denoted otherwise. Complete unit U-values are available on request.

Typical Values	U-Value (W/(m ² ·K))
Double Glazed	1.10
Triple Glazed	0.95
Solid Blade	1.20

Technical data

Impact resistant to DIN 18032-3	Pass
Barrier load to BS 6180:2011	1.5kN
Security performance to EN1627	RC2
Air permeability to EN12207 (50 Pa)	Class 4
Water tightness to EN12208 (200 Pa)	Class 3
Actuator Voltage	24V DC
Actuator Current (with load)	1.2 Amps
Opening Time	< 60 seconds

Sound reduction

Values based on weighted apparent sound reduction index – RW.

Typical Values	RW
Double Glazed	39
Triple Glazed	41
Solid Blade	33
Special Acoustic Blade	48

Certification data

Aerodynamic Area	0.57
Reliability	RE1000
Product Life Comfort Cycles	10,000
Snow Load	SL0
Wind Load	WL3000
Low Ambient Temperature	T(-05)
Resistance to Heat	B300

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Standard size range

With a minimum blade height of 200mm and a maximum height of 450mm – virtually any height can be manufactured.

Subject to the overall size of window and louvre blade heights the frame width can be manufactured 350mm to 2500mm. For larger spans there is a special centre mullion design.

Installation

Façade Louvre Blade – Residential (FLB-R) may be installed into masonry openings using anchor strap brackets, or through pre-drilled holes in the side frame. They may also be installed into curtain walling using glazing adaptors.

Anti-trapping Actuator

These smoke vents are installed with anti-trapping actuators which limit the possibility for the trapping of body parts within the closing blades.

This feature is programmed into the safety setting of each actuator and controls the speed, force, and overload cut off in the closing stroke. This programme is dependant on overall unit size and number of blades and splits the closing stroke into three zones.

Closing zone 1 – from fully open to within 50mm of fully closed.

Speed 2.1mm/sec, and closing force 250N

Closing zone 2 – from within 50mm of fully closed to 4mm.

Speed 1.4mm/sec, and closing force of 200N

Closing zone 3 – from within 4mm of fully closed to closed.

Speed 2.1mm/sec, and closing force of 415N

Closing zones 1 & 2 have the safety feature added to prevent trapping. If there is resistance to the smooth closing within these zones of more than 50N the actuator will automatically stop for 10 seconds and then retry the closing procedure twice more. If resistance continues the actuator will return to the fully open position.

Closing zone 3 is within 4mm of the fully closed position and therefore there is no possibility of manual intervention at this stage and no danger of trapping within this zone.

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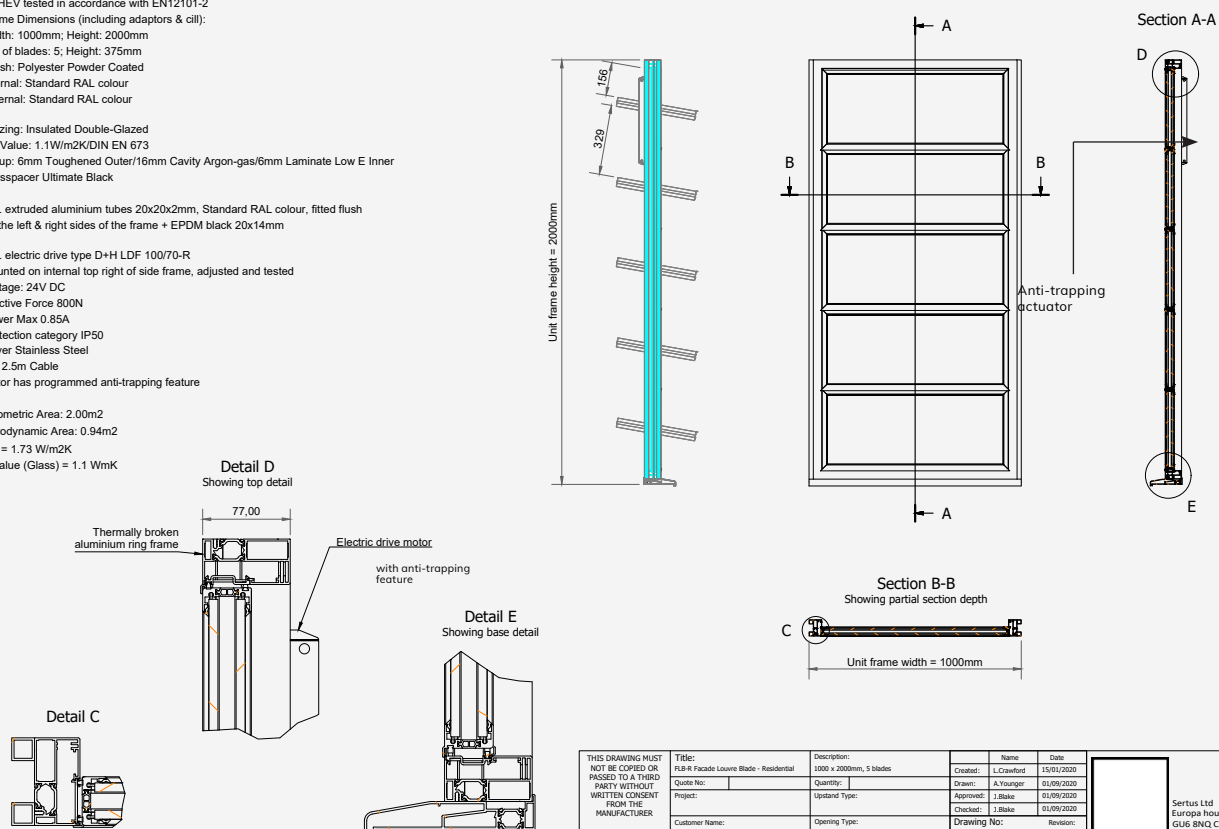
Insulated Double-Glazed ventilator with thermally broken extruded aluminium frames
 NSHEV tested in accordance with EN12101-2
 Frame Dimensions (including adaptors & sill):
 Width: 1000mm; Height: 2000mm
 No. of blades: 5; Height: 375mm
 Finish: Polyester Powder Coated
 Internal: Standard RAL colour
 External: Standard RAL colour

Glazing: Insulated Double-Glazed
 Ug-Value: 1.1W/m²K/DIN EN 673
 Setup: 6mm Toughened Outer/16mm Cavity Argon-gas/6mm Laminated Low E Inner
 Swisspacer Ultimate Black

incl. extruded aluminium tubes 20x20x2mm, Standard RAL colour, fitted flush
 on the left & right sides of the frame + EPDM black 20x14mm

Incl. electric drive type D+H LDF 100/70-R
 Mounted on internal top right of side frame, adjusted and tested
 Voltage: 24V DC
 Tractive Force 800N
 Power Max 0.85A
 Protection category IP50
 Cover Stainless Steel
 incl 2.5m Cable
 Motor has programmed anti-trapping feature

Geometric Area: 2.00m²
 Aerodynamic Area: 0.94m²
 Uw = 1.73 W/m²K
 U-value (Glass) = 1.1 WmK



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 PARTY WITHOUT
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Title:	FLB-R Façade Louvre Blade - Residential	Description:	1000 x 2000mm, 5 blades	Name:	L. Crawford	Date:	15/01/2020
Quote No:		Quantity:		Drawn:	A. Younger	01/09/2020	
Project:		Upland Type:		Approved:	J. Blake	01/09/2020	
Customer Name:		Opening Type:		Checked:	J. Blake	01/09/2020	
Project Address:		Finish:		Drawing No:	FLB-R 1000-2000	Revision:	01
		Ref No:		Sheet number:	1 of 1		
				Scale:	DWG	Size:	A3
				Units:	mm		

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