



Kingspan Ecovision EL Data Sheet

Façade ventilation window for natural ventilation, air inlet and natural smoke ventilation with electrical control system



Daylighting Solutions
Natural Ventilation Solutions
Smoke Management Solutions
Service & Maintenance
Building Automation



Kingspan Ecovision EL

Description

The Ecovision EL façade ventilation window can be used for smoke ventilation (SHEV - CE-certified according to EN 12101-2 and compliant with NF S 61-937-1 and NF S 61-937-7), and/or as an air inlet.

It can be installed in façade on all types of supports, such as glass curtain wall, or in roof, integrated into northlight. The electrical control system operates chain actuators or linear actuators, enabling an opening angle of 60° depending on the type of opening and its dimensions.

Several opening types are available: bottom hung inward /outward opening, side hung inward /outward opening.

Ecovision EL is available with thermally broken profiles (Premium version) and standard profiles to cover a wide range of applications. The two types of profiles and their multiple adaptations mean the Ecovision EL can be used in concrete façades, aluminium joinery and curtain walls.

Multiple choices are available for the glazed panel: single, double or triple glazing, sandwich panel, Multiwall Polycarbonate (MWPC) and MWPC with AeroTech®.



Advantages

- Flexible and adaptable to all types of building façades and all configurations.
- Thermal insulation using thermally broken profiles and AeroTech® glazing or other special glazing solutions.
- Contributes to bioclimatic building design as foreseen by RT 2012 thermal regulations - in relation to natural daylight on façades and ventilation (calculation of Bbio index).
- Aluminium profiles with high quality finish, seamless integration through aesthetic finish.
- Natural ventilation available on smoke ventilation windows at no extra cost.

Standard description

Ecovision EL smoke ventilation opening vent compliant with NF EN 12101-2, thermally broken aluminium profiles with natural anodised finish or RAL colour of choice, 44.2/16/44.2 glazing (or other), 24V open/close control system.

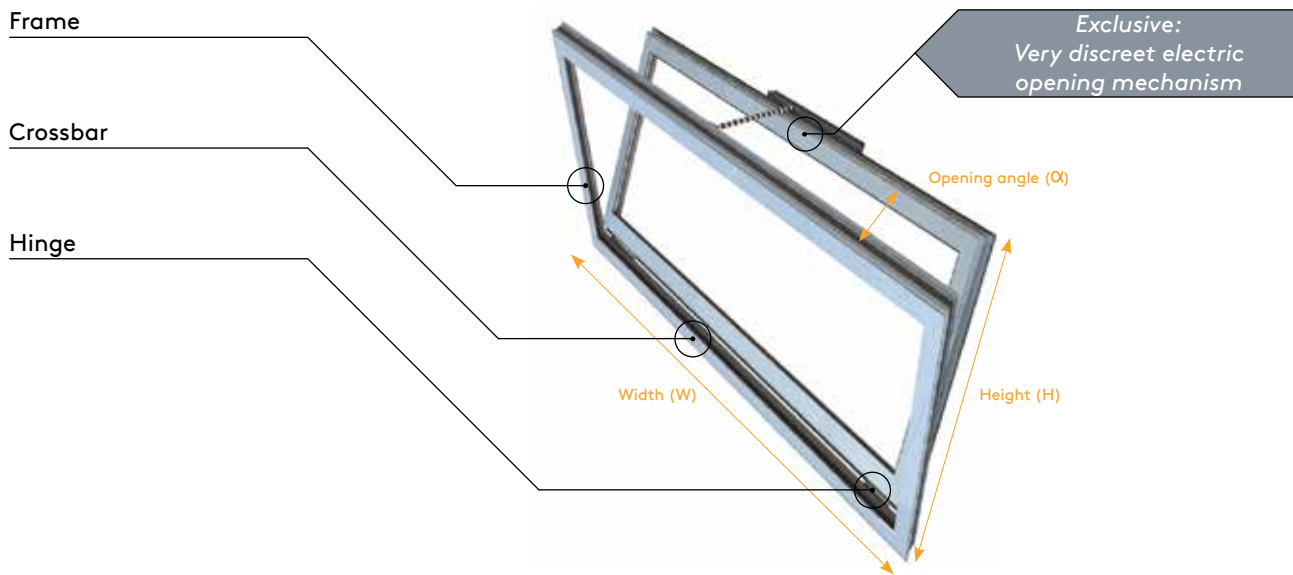
Wide range of applications for new builds and renovation

Stairwells, passageways, halls and conservatories, for roof-mounting, 90° installation in northlight.

- Public buildings: retail outlets, schools, sports facilities
- Commercial and industrial buildings
- Multi-occupancy buildings



Description



Profiles can be adapted to needs



Width: 50 mm

Standard version:
standard profile.



Width: 65 mm

Premium version:
Thermally broken profile
(TB) for buildings requiring
optimised insulation.



Width: from 20 to 34 mm

Adapter profile for
curtain wall.

Types of opening



Side hung window inward opening



Side hung window outward opening



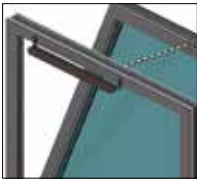
Bottom hung window inward opening



Bottom hung window outward opening

Two types of electric actuators available

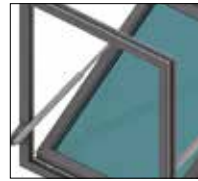
Chain Drives: reliable and aesthetic



The window frame is fitted with one or two chain drives at the top. When installed and applied, the chain drive is at the top for bottom hung windows and on the side for side hung, depending on the opening direction.

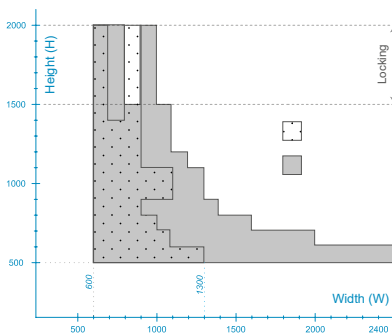
- Maximum opening angle: 60° (depending on frame dimensions).
- Opening time less than 60 seconds.
- Power usage: 1 to 3 A per frame, depending on dimensions.
- Wiring concealed in profiles.
- Small size for maximum security.

Linear Drives: efficient and powerful

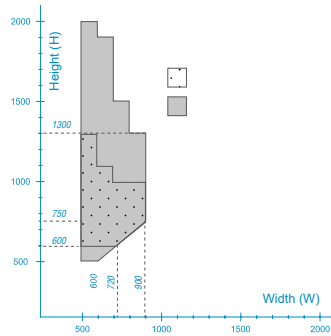


Electric linear drives are fitted in parallel pairs on the opening vent.

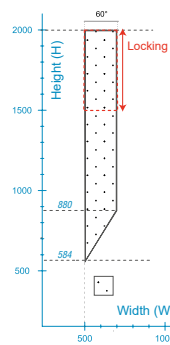
- Opening angle up to 60°.
- Power usage: 1.6 to 2A per frame, depending on dimensions.
- Power usage: 1 to 3 A per frame, depending on dimensions.
- Wiring concealed in profiles for maximum discretion.



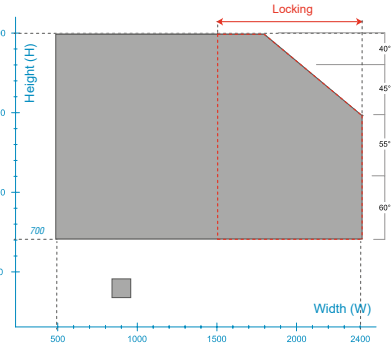
Dimensions - Side hung inward/outward opening



Dimensions - Side hung inward/outward opening



Dimensions - Bottom hung inward/outward opening



Dimensions - Bottom hung inward/outward opening



Smoke ventilation performance and classes (according to EN 12101-2)

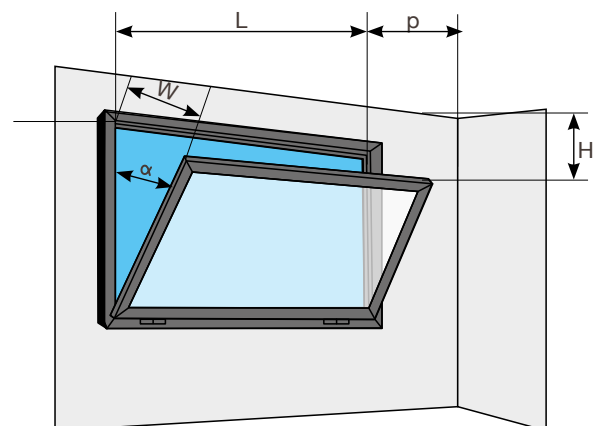
Name	Class	Meanings / Observations
Operation	Type B	Opening and closing from the ground
Aeraulic surface Aa	Aa	Effective smoke ventilation surface of SHEV using dimensions of opening vent and aeraulic coefficient Cv
Aeraulic coefficient	Cv	Aeraulic efficiency of SHEV: varies according to dimensions, type of opening, type of profile, opening angle and configuration of installation site
Resistance to heat	B 300	Operating test at a temperature of 300°C
Reliability	RE 1000 (smoke ventilation only) + RE 10 000 (ventilation)	Number of smoke ventilation /ventilation open / close cycle tests
Wind load	WM 1500	Wind load resistance
Low temperature	T (00)	Unit meets French requirements
Pitch	0°	Vertical application (only on building façade)
AEV Class (Air-Water-Wind)	Side hung casement opening outward - Linear actuator: A*3 - Wa*6A - Wi*A3 Side hung casement opening outward - Chain actuator: A*3/A*4 - Wa*6A/E7A - Wi*A3	NF EN 12207 and NF EN 1026: Air permeability NF EN 12208 and NF EN 1027: Water tightness NF EN 12210 and NF EN 12211: Wind resistance

Acoustic values

Dimension	Glazing	Thickness Glazing	R _w Plazing	R _w Prod.	R _{A, tr}
1200 x 1200	Aluminium acoustic glazing	43 mm	-	41 (-1;-6) dB	35 dB
	44.2A /16 Argon /6	31 mm	42 (-2;-6) dB	41 (-1;-4) dB	37 dB
	66.2A /16 Argon /44.2A	37 mm	48 (-2;-6) dB	43 (-1;-4) dB	39 dB

Aeraulic performance for natural smoke ventilation

The Cv coefficient varies according to the dimensions and opening angle. Please contact us to discuss your project.



The complete solution for smart ventilation and smoke ventilation

Multiple solutions are available to control your natural smoke ventilation systems using specially-designed control systems for smart building control.

Ecovision EL electric vent with chain drive or linear drive

MZ2-16A control panel and higher

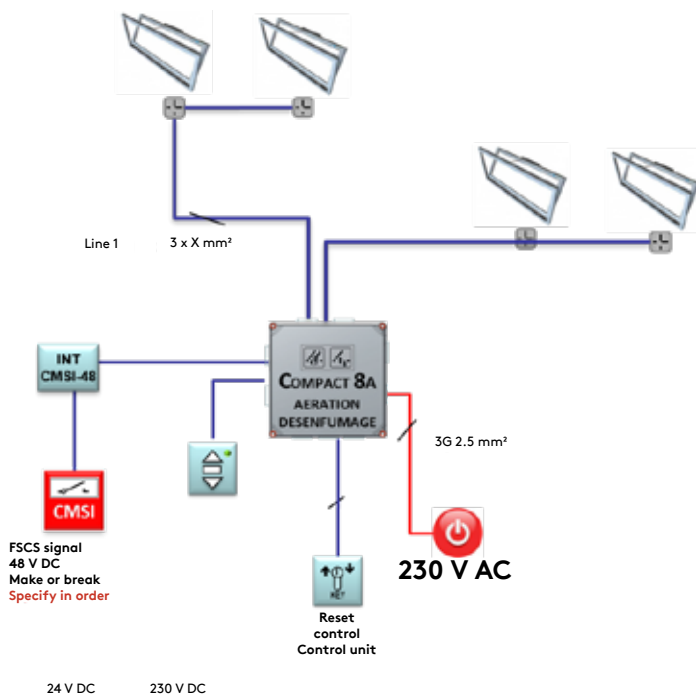
I-Vent 8A control panel

Compact control panel 4A and 8A

TRZ - 2A control panel

TRZ - 2A control panel

Principle of an electrical smoke ventilation and free ventilation system



Accessories

- Finishing profile
- Skirting
- Seal cover
- Guttering



Did you know?

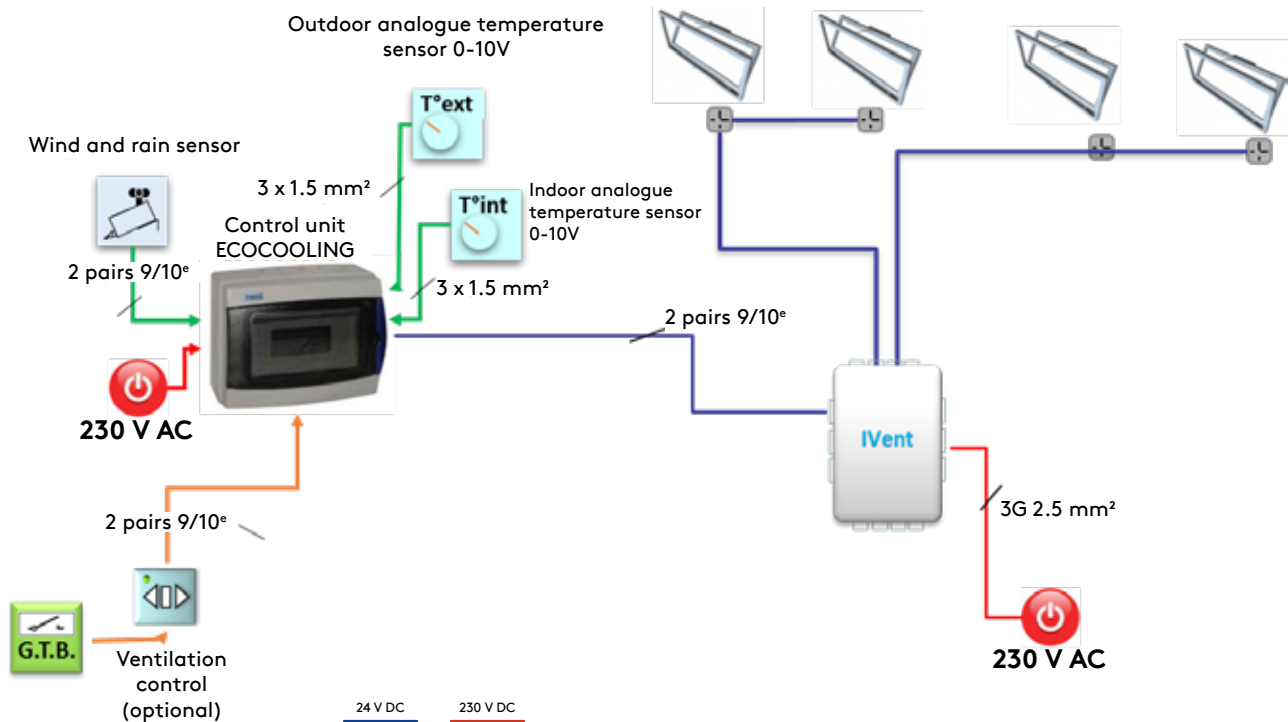


"In general, we spend 80 % of our time inside buildings."



"90% of fire victims die because of smoke inhalation!"

Principle of an electrical ventilation system



Options

- 1. Paint finish**
Inside/outside dual colour possible on Thermally-broken profiles (Premium).
- 2. Position sensors**
Standby and/or safety open position.
- 3. WPS anti-pinch system**
Ideal for public buildings, schools and universities, especially for passageways.
- 4. Special glazing**
Thermal, heat-deflection, acoustic, burglar-proof treatments.
- 5. Control systems on request, supplied and installed**
- 6. Finishes available**
Aluminium with RAL paint finish.
Anodised aluminium.



Certifications



INTERNATIONAL

Kingspan Light + Air

E: kla.international@kingspan.com

www.kingspanlightandairinternational.com

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