



Kingspan Ecofeu Premium Alu 110 SCE Data Sheet

Thermally-broken Smoke exhaust vent designed for Stairwell



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



Premium Range

Thermal regulations

In order to meet the requirements of energy performance standards applied to new buildings and the increasing need for saving energy, Kingspan Light + Air brings different solutions for you, with the Premium range.

This range of new-generation skylights removes thermal breaks and limits heat losses while providing natural daylighting and ventilation.



Kingspan Ecofeu Premium Alu 110 SCE

Description

Smoke & heat exhaust vent (SHEV) designed for stairwells, with thermal break applicable for waterproof roofing, CE certified according to EN 12101-2, with electric (EL), pneumatic (PN) or mechanical (TC) operating system allowing smoke exhaust and easy roof access, while preserving the building's insulation.
Urc from 1.3 W/m².K*

Premium Range



Smoke vent with
double-glazing
Urc from 1,3 W/m².K*

Avantages

- Urc from 1,3 W/m².K*.
- Fully thermally broken smoke vent, with frames made of aluminium profiles with double polyamide thermal breaks and insulating air chambers to minimise heat loss by transmission: 70% LESS energy loss compared to a conventional smoke vent.
- Double glazing offers excellent sound attenuation.
- Light transmission is optimised thanks to the double-glazing.
- Unique locking system patented by Kingspan Light + Air (EL and PN versions).
- The unit is airtight to ensure better control of heat loss via air leakage.
- Wide choice of double-glazing, multiwall polycarbonate and aluminium panel.
- The frames, lid and/or kerb can be painted in the RAL colour of your choice.
- Allow easy access to the roof.

Upstand for renovation

The Ecofeu Premium Alu 110 SCE with thermally broken profiles is intended for renovation and compliance. It is laminated, with a thermally-broken lid. Designed with a 200 mm height kerb (as a standard) and a 100 mm insulated flange, the upstand can be fully doubled and insulated by a 50mm thick rock wool insulation.



Standard description

The building's natural smoke and heat exhaust will be provided by Ecofeu Premium Alu 110 SCE smoke vents from Kingspan Light + Air, CE certified in accordance with EN 12101-2 and in accordance with the Machinery Directive. Performance categories meeting requirements of European legislation, including the 10,000-cycle ventilation function. Insulated 50 mm kerb, 400 mm high. Aluminium opening lid and fixed frame with thermal break, Urc = 1.3 W/m².K*.

* Urc as obtained with the best combination (kerb / upstand / lid and glazing / dimensions)

Description

Lid with thermally broken profiles

- Choice: See details on next page
- Multiwall polycarbonate lid 16 and 32 mm (MWPC)
 - Aluminium lid
 - Double-glazing lid

1200 Joule opening grid

Aluminium fall-protection grid
RAL paint finish on request.

2-point locking system

New-generation locking system patented by Kingspan Light + Air for electric and pneumatic control systems. Improved airtightness and mechanical strength

Double sealing

- 1 EPDM rubber gasket: lid sealing and thermal break.
- 2 EPDM seals: dual air and watertight seal between the opening frame (lid) and fixed frame.
- 4 breaks: double thermal break on opening frame (lid) and fixed frame.
- EPDM strip: thermal separation between fixed frame and kerb.

Opening lid with thermally broken profiles

Bare aluminium finish as standard RAL, powder coating possible on request.

Mechanism

- Choice: See details on next page
- PN: pneumatic drive
 - EL: electric drive 24V - 2,6A
 - TC: Oleo-pneumatic gas spring for opening and closing

Thermally broken aluminium fixed frame

Bare aluminium finish as standard RAL, powder coating possible on request.

Straight insulated metal kerb or upstand

The thermally broken kerb is made of galvanised steel. Height: 400 mm. Thermal insulation is provided by a 50 mm thick rock-wool insulation for waterproofed flat roofs. Interior coating finish on request.



Glazing

1. Multiwall polycarbonate (thermally broken) lid Advantages

- Lid with the best insulation/price ratio.
- Possible glazing filling with AeroTech®.

2. Aluminium lid (thermally broken and insulated) Advantages

- Full opacity with excellent thermal insulation.

Version	N°	Ug Value (W/m².K) Façade
Aluminium lid - 32mm	8	1,3

3. Double-glazing lid (thermally broken) Advantages

- Excellent thermal, light transmission and acoustic performances.
- Very good resistance over time.
- Wide choice of standard double glazing.
- CEKAL Certification available.
- Any other glazing (either with or without CEKAL marking) available upon request so as to meet all your needs.
- See-through is improved

Version Multiwall Polycarbonate	N°	Ug Value (W/m².K) Façade	Ug Value (W/m².K) Toiture	Light Transmis- sion (%)	Solar Heat gain coeff. g (%)
MPWC 16 mm Opal	1	1,9	2,1	46	47
MPWC 16 mm Transparent	2	1,9	2,1	66	63
MPWC 16 mm Heat reduction	3	1,7	1,8	36	44
MPWC 16mm AeroTech®	4	1,5	1,5	65	62
MPWC 32 mm Opal	5	1,2	1,3	38	40
MPWC 32 mm Transparent	6	1,2	1,3	50	49
MPWC 32 mm Heat reduction	7	1,1	1,2	26	33



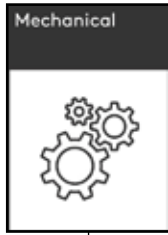
Version	Glazing type	N°	Ug Value (W/m².K) Façade	Ug Value (W/m².K) Roof	Light Transmission (%)	Solar Heat Gain coefficient g (%)
Therma low emissivity double glazing	Planitherm Ultra N II 6 mm / Argon 16 mm / Stadip 44.2	9	1,9	1,9	45	46
Solar control double glazing 1	Cool-Lite SKN 154 II 6 mm / Argon 16 mm / Stadip 44.2	10	1,9	1,9	55	53
Solar control double glazing 2	Cool-Lite SKN 165 II 6 mm / Argon 16 mm / Stadip 44.2	11	1,7	2,1	47	44
Solar control double glazing 3	Cool-Lite SKN 176 II 6 mm / Argon 16 mm / Stadip 44.2	12	1,5	1,5	67	67
Solar control double glazing 4	Cool-Lite Xtrem 60/28 II 6 mm / Argon 16 mm / Stadip 44.2	13	1,2	1,3	38	41
Solar control double glazing - accoustic 1	Cool-Lite SKN 154 II 6 mm / Argon 16 mm / Stadip Silence 44.2	14	1,2	1,3	48	47
Solar control double glazing - accoustic 2	Cool-Lite SKN 165 II 6 mm / Argon 16 mm / Stadip Silence 44.2	15	1,1	1,2	30	32

* Minimum slope required for a guaranteed self-cleaning effect: 15°
Summary of materials and most representative glazing thickness - contact us for any other request.



Control systems

For the choice of the appropriate operating system, according to the applicable regulation, please ask your Sales Representative.



Mechanical Control panel with winch



CO2 pneumatic control panel



Electrical control panel



Mechanically-operated system



Pneumatically-operated system



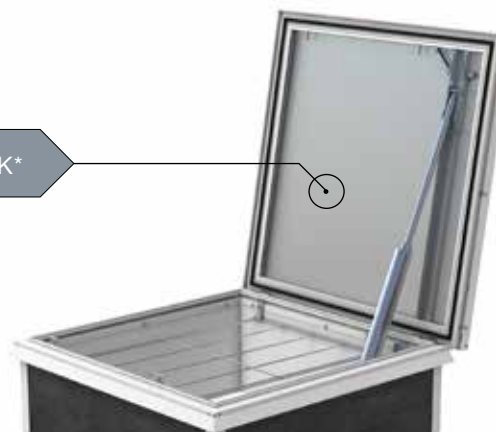
Electrically-operated system

Urc = 1,3 W/m².K*

Dimensions and technical characteristics

Dimension	Free area	Kerb height	Upstand height
100 x 100 cm	1 m ²	400 mm	200 mm

Designation	Fonctionning	Snow Load (N/m ²)	Wind Load (N/m ²)	Reliability	Heat Resistance	Opening angle	Airtightness
Class	Type B	Double-glazing: SL 250 MWPC, ALU : SL 500	TC : WL 1500 EL, PN : WL 3000	EL : Re 300 + 10000 ventilation (opening at 45°) PN, TC : Re 300	B 300	100°	AP = 0,20 m ³ / h/ml (100 Pa) I4 = 0,01 m ³ / h/ml



* Urc obtained with best combination (kerb/upstand + lid + dimensions)

The options

1. Kerb equipped for PVC waterproofing

Ecofeu Premium Alu 110 SCE is also suitable for PVC waterproofing membranes: without any modification of the kerb, we propose a non-coated insulation and a mounting kit.

2. The 1200 Joules opening grid

Anti-fall protection grid provides 1200 Joules resistance, grid lacquering available on request.



3. Padlock

The padlock secures the opening of the skylight from the inside and delays any unwanted entry.



4. Without thermofuse

Useful option, for example, when regulations require the fire detection system to control smoke ventilation. Available only for pneumatic version.

5. Kingspan Light + Air AeroTech® insulation

The Kingspan Light + Air AeroTech® solution is a technology relying on an insulating aerogel injected into the polycarbonate walls, which improves the diffusion of natural light while reinforcing thermal and acoustic insulation.



6. Handrail

The handrail is a good help to pass through the skylight. The additional support point eases access to the roof.



7. Frame lacquering

The frames and the kerb of your skylight can be lacquered with your choice of RAL colour. Ideal for blending your skylight into your building.



8. Ladder attachment bar

The ladder attachment bar is fixed to the kerb to keep it steady and ensure safe access to the roof.



9. Limit switches

This option is required when installing SHEV in a Category A or B Fire Safety System. The limit switch enables connection to the fire safety central control panel.

Kingspan Light + Air at your service:

Kingspan Light + Air is a manufacturer as well as a service provider with a network of service engineers and in-house CFD and fire engineering expertise. Proper, preventative, pre-emptive maintenance of Smoke & Heat Exhaust Systems undertaken by qualified specialists will not only ensure the highest levels of safety and security but also mean savings in time and money.

The comfort of a partner who takes care of everything: ask your local representative for more information about the services available in your country.



Certifications



INTERNATIONAL

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For the product offering in other markets please contact your local sales representative or visit www.kingspanlightandairinternational.com

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