Light + Air International



## Flat glass skylights with genuine glass

# Energieeffizienz

## Data sheet

For higher demands in industrial and administration buildings as well as public buildings and private residential properties



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



### **Application**

The innovative daylight system with genuine glass can be implemented either in a rigid or ventable design, with a linear or chain drive. It is perfectly suited for both daily ventilation and smoke extraction, for example in stairwells. The window also has an option for radio controlled opening/closing. There is also a wide variety of solutions available both for new builds and for optimising energy efficiency in renovation projects as it can be combined with the extensive Kingspan range of system components, including hatches or glare protection.

#### **Application areas**

- office and administration buildings, schools, nurseries, atriums, residential buildings with flat roofs with a roof pitch from 0° to max. 20°, recommended from a roof pitch of 6°
- new builds, energy-optimising renovations and repairs

#### **Material**

 PVC and aluminium profile, heat insulation glazing as overhead glazing, EPDM seals

#### Features and benefits

- quick and easy energy-saving renovations including products from other manufacturers using Kingspan systems and optional PVC renovation skylight base
- simple replacement of existing Kingspan skylight domes
- 6° pitch GFK adapter frame combined with skylight bases, can also be used with products from other manufacturers
- fully framed, highly transparent and flush-mounted genuine glass
- no thermal bridges in the whole construction with thermally separated profile system combined with high-quality thermal insulation glazing with a  $\rm U_t$  value up to 0.6 W/(m²K)\* and triple sealing
- smooth isothermal diagram
- air permeability according to EN 12207: Class 4
- thermally separated steel skylight base available in 5 variants (see table, page 5)
- optimised daylight transmission and minimal rain noise compared to acrylic glazing
- available in rigid or ventilated designs with chain or 24 V or 230 V linear drive for daily ventilation as well as smoke extraction, optional radio controlled operation
- fall-through protection to GS-BAU-18 (up to max. 300 mm opening, EN 18008-6 available on request)
- can be combined with Kingspan roof access hatch types G,
   M or glare protection



Flat glass skylight with 50 cm angled skylight base and linear drive



Flat glass skylight with 50 cm vertical skylight base and roof access hatch with gas pressure spring (type G)



Flat glass skylight with vertical 6° thermally separated 50 cm steel skylight base and roof access hatch with linear drive

<sup>\*</sup> Manufacturer's specification, glazing

## Application



Flat glass skylight with roof access hatch type G open – view from below



Flat glass skylight with chain drive open –view from below



Flat glass skylight with roof access hatch type G – detail view from below



Flat glass skylight with linear drive and glare protection –view from below

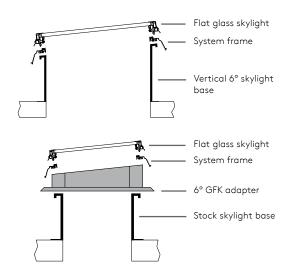


Flat glass skylight with linear drive and glare protection open – detail

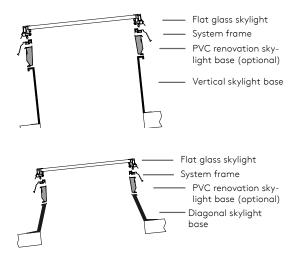


Flat glass skylight with linear drive and glare protection –view from below

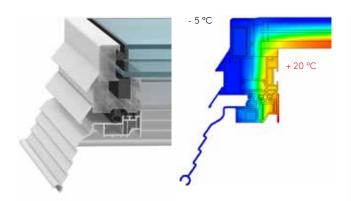
## **Application**



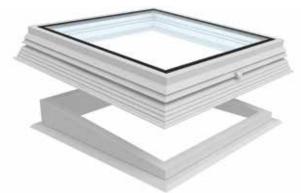
Installation of flat glass skylight in flat roof < 6°



Installation of flat glass skylight in flat roof ≥ 6°-20°



Left: Cross-section of flat glass skylight with triple heat insulation glazing Right: Isothermal diagram Cross-section of flat glass skylight with triple heat insulation glazing



Flat glass skylight with 6° GFK adapter frame



Flat glass skylight with thermally separated 50 cm flex-steel skylight base and open roof access hatch type M - view from below



Flat glass skylight with roof access hatch type G – detail

## Technical specifications

Opener position	Size L x W (cm)	Cover opening dimen- sion diagonal skylight base L X W (cm)	Cover opening dimen- sion vertical skylight base L X W (cm)	Cover opening dimen- sion 6° vertical skylight base L X W (cm)	Cover opening dimen- sion ver- tical flex skylight base * L X W (cm)	Cover opening dimen- sion 6° vertical flex sky- light base * L X W (cm)	above 6° GFK	Incident light area [m²]	Linear drive 300 and 500 mm	300	drive and mm	Roof access hatch, type G (gas pressure spring)	Roof access hatch, type M (linear drive)	Glare pro- tection <sup>1)</sup>
			WWW.WWW.	WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW										
	60 x 60	60 x 60	40 × 40	40 x 40			40 x 40	0,16	•	-	-	-	-	•
	60 x 90	60 x 90	40 x 70	40 x 70				0,28	•	-	-	•	-	•
	80 x 80	80 x 80	60 x 60	60 x 60				0,36	•	-	-		-	•
	90 x 90	90 x 90	70 x 70	70 x 70	Non-standard sizes on request		70 x 70	0,49	•	-	-	2)	=	•
	90 x 120	90 x 120	70 x 100	70 x 100			70 x 100	0,70	•	•	•	•	2)	•
	100 x 100	100 x 100	80 x 80	80 x 80			80 x 80	0,64	•	•3)	•3)	2)		•
	100 x 150	100 x 150	80 x 130	80 x 130			80 x 130	1,04	•	•	•	-	-	•
	120 x 120	120 x 120	100 x 100	100 x 100			100 x 100	1,00	•	•	•			•
	150 x 150	150 x 150	130 x 130	130 x 130			130 x 130	1,69	•	•	•	-	-	•

Standard glazing double transparent glazing with fire behaviour class A (DIN 4102-1) Other glazing options (triple, opal and other sun protection glazing) on request

#### Combinations, new builds and renovations

		Basic cor	mbination	Optional substructure				
	Flat glass skylight	System frame	Mounting accessory kit 1 <sup>3)</sup>	Motor mounting accessory kit 2 <sup>4)</sup> Motorkonsole	6° GFK adapter frame	PVC 15 cm renovation skylight base <sup>5)</sup>	Thermally separated 50 cm steel skylight base (5 options) <sup>6)</sup>	
Flat roof ≤ 6° new build	•	•	•	•	-	_	•	
Flat roof ≤ 6° renovation 5)	•	•	•	•	•	•	•	
Flat roof ≥ 6° new build	•	•	•	•	-	_	•	
Flat roof ≥ 6° renovation 5)	•	•	•	•	=	•	•	

The combination of flat glass skylight and system frame with a Ur value  $\leq 1.3$  W/(m²K) corresponds to the ENEV (German Energy-Saving Ordinance) for residential and commercial properties

 $<sup>^{5)}\,\</sup>mathrm{A}\,\,\mathrm{PVC}$  or steel skylight base can be used for lower requirements

Version	Double heat insulation glazing transparent	Triple heat insulation glazing transparent	Double heat insulation glazing opal	Triple heat insulation glazing opal	Double sun protection glazing neutral 70/37	Triple sun protection glazing neutral 70/37
U <sub>t</sub> value	1.1 W/(m²K) *	0.6 W/(m <sup>2</sup> K) *	1.1 W/(m²K) *	0.6 W/(m²K) *	1.0 W/(m²K) *	0.6 W/(m²K) *
Light transmission	80 % *	72 % *	54 % *	48 % *	69 % *	62 % *
g value	59 % *	51 % *	54 % *	47 % *	39 % *	34 % *
Soundproofing quality R <sub>wp</sub>	39 dB *	44 dB *	39 dB *	44 dB *	39 dB *	44 dB *

<sup>\*</sup> Manufacturer's specification, glazing

<sup>&</sup>lt;sup>1)</sup> Pole available in 1,500 or 2,500 mm

<sup>&</sup>lt;sup>2)</sup> Does not correspond to DIN 18160-5

<sup>3)</sup> For 300 mm chain drive only

 $<sup>\</sup>star$  44 -150 cm, the length/width ratio of the intermediate sizes corresponds to the length/width ratio of standard sizes

<sup>&</sup>lt;sup>3)</sup> For mounting system frames - the linear drive can be mounted using the enclosed bracket irrespective of the substructure provided on site

<sup>4)</sup> Can be used with components from other manufacturers

#### **INTERNATIONAL**

Kingspan Light + Air

E: kla.international@kingspan.com www.kingspanlightandairinternational.com

