VELUX®

Product information
VELUX INTEGRA® Electric top-hung polyurethane roof window GPU

Product description

- Simple, convenient wall switch
- Pre-installed hidden window operators
- Rain sensor ensures that the window closes automatically in case of rain
- Easy installation of mains powered decoration and sunscreening products
- Wall switches use secure radio frequency (RF) technology to operate individual or groups of roof windows, blinds, awnings and roller shutters from anywhere in the building
- Ventilation flap allows fresh air to circulate even when your window is closed
- Integrated dust and insect filter

Roof pitch

- Can be installed in roof pitches between 15° and 65°

Materials

- A core of thermally modified timber with a seamless waterproof polyurethane coating
- VELUX ThermoTechnology™ insulation ensures an excellent energy performance
- Maintenance-free exterior covers in lacquered aluminium, copper or zinc

Downloads

For installation instructions, CAD drawings, 3D BIM objects, 3D GDL objects etc, please visit velux.co.uk

Certifications

10 YEARS GUARANTEE

The VELUX product factories guarantee quality systems implementation process and environmental management systems through appropriate accreditations ISO 9001 and ISO 14001

EUTR In compliance with the EU Timber Regulation (EUTR), EU regulation 995/2010

REACH We are aware of the REACH regulation and acknowledge the obligations. No products are obliged to be registered in accordance to REACH and none of our products contains any Substances of Very High Concern.

Available sizes and daylight area

	472 mm	550 mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm							
978 mm							
1178 mm			GPU FK06 (0.47)	GPU MK06 (0.59)	GPU PK06 (0.75)	GPU SK06 (0.95)	
1398 mm			GPU FK08 (0.58)	GGU MK08 (0.72)	GPU PK08 (0.92)	GPU SK08 (1.16)	
1600 mm							

( ) = Effective daylight area, m^2

Lining measurements

Size	Width (mm)
FK--	605
MK--	725
PK--	887
SK--	1085

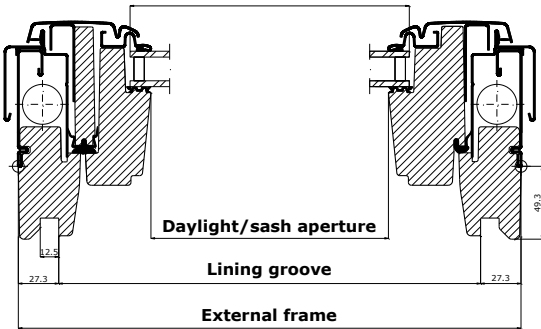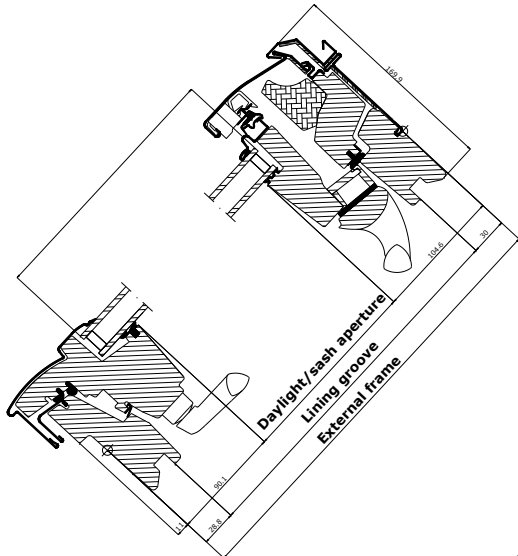| Size	Height (mm)
--06	1119
--08	1339

Recommended application

Mains powered VELUX INTEGRA® roof windows are

- perfect for new installations where frequent use of the window is essential
- ideal for out-of-reach situations or when extra convenience is needed
- For an unobstructed panoramic view the window opens outwards to an angle of 45°

VELUX INTEGRA® wall switch ensures

- a perfect level of energy efficiency and comfort
- easy ventilation and better indoor air quality

Width

Daylight/sash aperture

Lining groove

External frame

12.5

27.3

49.3

27.3

Height

Daylight/sash aperture

Lining groove

External frame

Technical values

	--70	--66
U_w [W/m²K]	1.3	1.0
U_g [W/m²K]	1.0	0.5
R_w [dB]	35	37
g [ ]	0.46	0.52
τv [ ]	0.68	0.71
τuv [ ]	0.05	0.05
Air permeability [class]	4	4

Thermal improvements such as lower U-value (U_w) and lower linear heat loss coefficient (φ) can, for some variants, be obtained with frame insulation collar and/or recessed installation.

Glazing structure

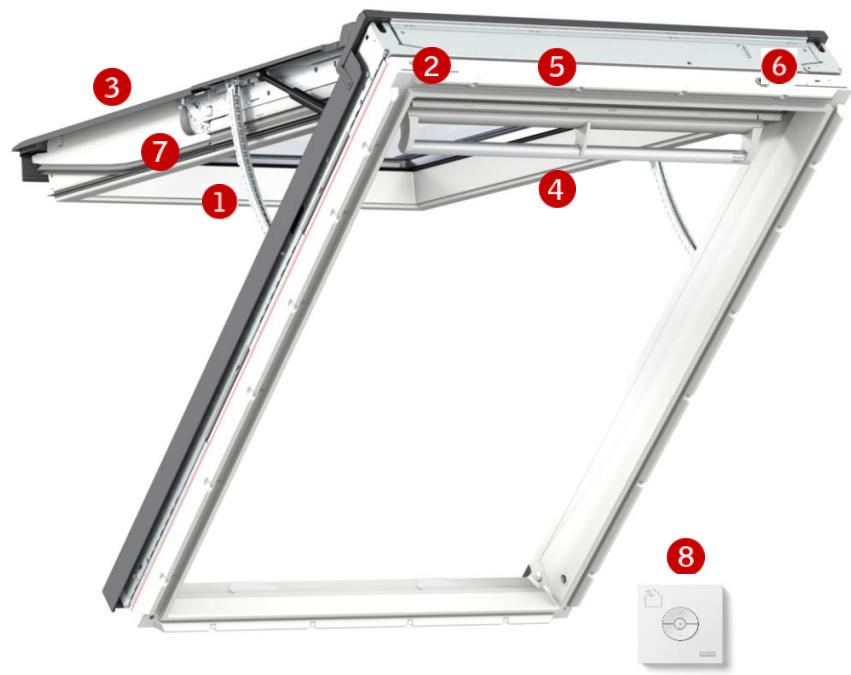|	--70	--66
Inner glass pane	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating
Middle glass pane	-	3 mm heat strengthened float with low ε coating
Outer glass pane	4 mm toughened	4 mm toughened with coatings
Cavity	15 mm	2 x 12 mm
Glass panes	Double	Triple
Gas filling	Argon	Krypton

Glazing features

		--70	--66
	Heat insulation Low energy glazing provides reduced heat loss through the window and enhanced indoor comfort.	●	●●●
	Solar gain In the wintertime, the heat from the sun entering through the windows is a usable solar gain.	●●●	●●
	Solar protection In warm climates and in rooms with large window areas, a sun protective coating provides a better indoor climate during summer periods. Alternatively, exterior sun screening can be installed.		
	Sound insulation A combination of laminated glass and optimal glass thickness provides better sound insulation. Frame/sash construction and gaskets are equally important.	●●	●●●
	Security Thicker laminated inner glass pane designed to increase resistance to manual attack (burglary).	●	●
	Energy balance The energy balance represents the ability of the roof window to utilise the passive solar gain and keep in the heat during winter and its ability to protect against the risk of overheating during summer. Sun screening products can further improve indoor summer comfort.	✓	✓
	Safety Laminated inner glass is designed to hold the fragments together if the glass breaks. We recommend that you consider using glass units with laminated glass on the inside for windows placed above areas where people sleep, play or work.	✓	✓
	Outside strength Toughened outer glass pane makes your glazing more resistant to hail, heavy wind and snow loads.	✓	✓
	Delayed fading of materials Inner laminated glass protects materials behind the glass against UV radiation and therefore delays fading of the materials.	✓	✓
	Rain noise reduction The combination of laminated glass and extra thick glass helps provide a significant, audible reduction of rainfall sound. Frame/sash construction and gaskets are equally important.		✓
	Easy-to-clean The easy-to-clean coating minimises the cleaning frequency of the outer glass pane and gives you a clearer view in case of rain.		✓
	Anti-dew The anti-dew coating significantly reduces the days with dew on the outer glass pane and thus gives you a clear view.		✓

● Good   ●● Better   ●●● Best   ✓ Feature included in glazing variant

Technical values, ventilation through ventilation flap

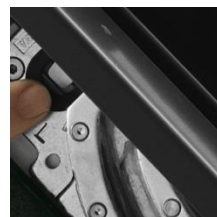| Property	Windows with double or triple glazing			
	Width			
	FK--	**MK--**	**PK--**	**SK--**
Air flow characteristics [l/s]	2.3	2.8	3.4	4.1
Air flow exponent [-]	0.53	0.53	0.53	0.53
Ventilation capacity at 4 Pa [l/s]	4.8	5.8	7.1	8.5
Ventilation capacity at 8 Pa [l/s]	6.9	8.4	10.2	12.3
Ventilation capacity at 10 Pa [l/s]	7.8	9.5	11.5	13.9
Ventilation capacity at 20 Pa [l/s]	11.3	13.7	16.6	20.1
Equivalent area through ventilation flap [mm2]	3700	3700	4600	5600
Geometrical free area [mm2]	3100	3600	5800	9100

Window opening

1 **Window opening**

When operated with the wall switch, the window opens variably outwards to 45°. The window can also be opened manually, eg in case of power failure

2 **Data plate**

Each VELUX roof window has a unique data plate showing type, size, variant etc of the window. QR code with link to local mobile website

3 **Click on covers**

Lacquered aluminium

4 **Ventilation flap with control bar**

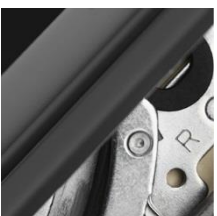The ventilation flap is designed with a control bar for ease of use.

5 **Excellent insulation**

Thermally modified timber in combination with elements of expanded poly-styrene ensure an excellent energy performance

6 **Barrel bolt**

The roof window can be rotated and secured in position with a barrel bolt to ensure safe and easy cleaning of the outside pane from the inside

7 **Hinges**

Electro-galvanised steel, in silver.

8 **Wall switch**

VELUX INTEGRA® wall switch for simple, convenient operation of the window.

Cleaning and maintenance

To clean the outer pane from the inside, rotate sash and secure in cleaning position with barrel bolt.

VELUX repair and maintenance kits are available.

Exterior covers

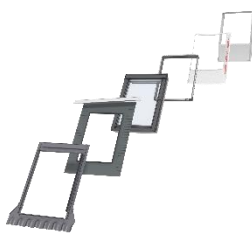| Material	NCS standard colour	RAL nearest standard colour
Lacquered aluminium (-0--) grey	S 7500-N	7043
Lacquered aluminium (-5--) black	S 9000-N	9005
Copper (-1--)	-	-
Titanium zinc (-3--)	-	-

Special colour requests, please contact velux.co.uk

Interior finish

White lacquer	Lacquer, white, NCS standard colour: S 0500-N, nearest RAL standard colour: 9003.

Special colour requests, please contact enquiries@velux.co.uk

Blinds, awnings and shutters

Interior sunscreening
Blackout blind	●●●
Roller blind	●●●
Pleated blind	●●●
Flying pleated blind	●
Double pleated energy blind	●●●
Venetian blind	●
Duo blackout blind	●

Exterior sunscreening
Awning blind	●●
Roller shutter	●●

Additional accessories
Insect roller screen	●

●●● Available in manual and solar powered versions
●● Available in manual, mains and solar powered versions
● Available in manual version
The mains and solar powered versions are part of the VELUX INTEGRA® product range.

Flashings and installation products

Flashings:
- ED- for single installation
- EK- for combi installation

Available for standard and recessed installation
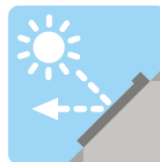
Installation products:
- Installation set BDX 2000 (incl. BFX)
- Underfelt collar BFX 1000 incl. transverse drainage gutter
- Vapour barrier collar BBX 0000
- Linings LS- (incl. BBX)

Control options

Upgrade your system
VELUX INTEGRA® Active sensor system monitors and receives data from the outside solar and temperature sensors and activates blinds and shutters when necessary. In this way, the system improves thermal comfort while also reducing cooling costs in summer and heating costs in winter.

Material and colour	Roof window: See brochure or price list for variants.
	Wall Switch: ABS, white (NCS S 1000-N).
	Window operator: PBT with glass fibre, black (NCS S 9000-N) and stainless steel chain.
	Rain sensor: Gold-coated sensor, grey (RAL 7022)
Size and weight	Size of product including packaging: The same as equivalent manually operated roof window.
	Weight: Approx 3 kg more than equivalent manually operated roof window.
	Wall switch: 82 x 82 x 17 mm (W x H x D), 114 g (with batteries 125 g).
Installation and use	The window is classified in protection class IP44.
	The window operators are hidden in the side frames and functions at temperatures between -10°C and +60°C.
	The wall switch is for indoor use, maximum ambient temperature 45°C.
	Radio frequency range: 300m free field. Depending on building construction, the indoor range is approximately 30m.
	Installation in rooms with a high level of humidity must comply with relevant regulations (contact a qualified electrician if necessary).
Power consumption	230/240 V a.c. – 50 Hz / 40 VA
	Wall Switch: 2 x alkaline AAA (1.5 V) batteries. Expected battery lifetime: Approximately 2 years.
Connection	The window is equipped with a 7.5 m 2-core cable (H05VV-F) with a standard mains plug for connection to the mains supply (2.5 m for the UK).
Compatibility	The window is based on radio frequency (RF) technology, 868 MHz range, and is compatible with other products with the io-homecontrol® logo.
	The window is prepared for subsequent installation of solar powered VELUX INTEGRA® interior and exterior decoration and sunscreening products.
	Connection to non-compatible products may cause damage or malfunction.
CE marking	The window is CE-marked to indicate that it is in accordance with the EU directives CPD, LVD, MD, R&TTE and EMC for household, trade and light industry.
Note	This sheet describes the added features of mains powered VELUX INTEGRA® roof window GGU compared with manually operated VELUX roof window GGU. For further information on the features and specifications of GGU, please see the main VELUX brochure.
	We reserve the right to make technical changes.