VELUX smoke ventilation roof window GGL, D variant

VELUX®

10 Year Guarantee

15°–60°(90°)

Increase personal safety and building safety in the event of fire with a VELUX smoke ventilation window. The window automatically opens when smoke is detected to quickly release smoke and excess heat and meets EU requirements. Can also be opened to let in fresh air for comfort ventilation. Exterior design matches other VELUX roof windows Requires a control system to be activated.

- Opens to full fire position in just 60 seconds when smoke ventilation is activated.
- Maintain the exterior look of your building with VELUX smoke ventilation windows.
- Fully complies with current and expected future CE standards and regulations.
- Wind deflector (add-on) enhances aerodynamic free areas to quickly let out heat and smoke. (Required in certain types of buildings).
- Fully compatible with VELUX smoke ventilation control systems KFX 210-214 or KFC 210/220 that are to be purchased separately.
- Comes in a wide range of sizes for installation in virtually any building project.
- Prepared for connection to optional non-VELUX alarm systems for central control.
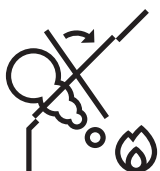
CE

PEFC
PEFC/09-31-020

Application guidance

The window can be installed in roof pitches between 15° and 60° to the horizontal.
Note: Max 60° refers to EU standard measuring requirements.
In roof pitches between 60° and 90°, local building regulations may require a wind direction sensor to prevent the window from opening and letting in air.

A VELUX smoke ventilation window is designed to quickly release smoke and excess heat. The window comes complete with a smoke ventilation motor and is compliant with all EU requirements. For operation and automatic opening, a VELUX smoke ventilation control system KFX 210-214 or KFC 210/220 must be purchased separately. The VELUX smoke ventilation control system can enable several functions including automatic opening of the smoke ventilation window. It can also be opened to let in fresh air for improved indoor comfort.

Available sizes and daylight area

The size overview shows the availability across the different glazing variants. Please note that the individual glazing variant may not be available in all the sizes shown.

	780	942	1140	1340
978	GGL MK04 (0.47) [0.53]			GGL UK04 (0.91) [0.98]
1178	GGL MK06 (0.59) [0.66]	GGL PK06 (0.75) [0.83]	GGL SK06 (0.95) [1.03]	
1398	GGL MK08 (0.72) [0.81]	GGL PK08 (0.92) [1.01]	GGL SK08 (1.16) [1.25]	GGL UK08 (1.40) [1.54]

All measurements are in mm.   ( ) = Effective daylight area, m² [ ] = Geometric free area, m²

Cross section dimensions
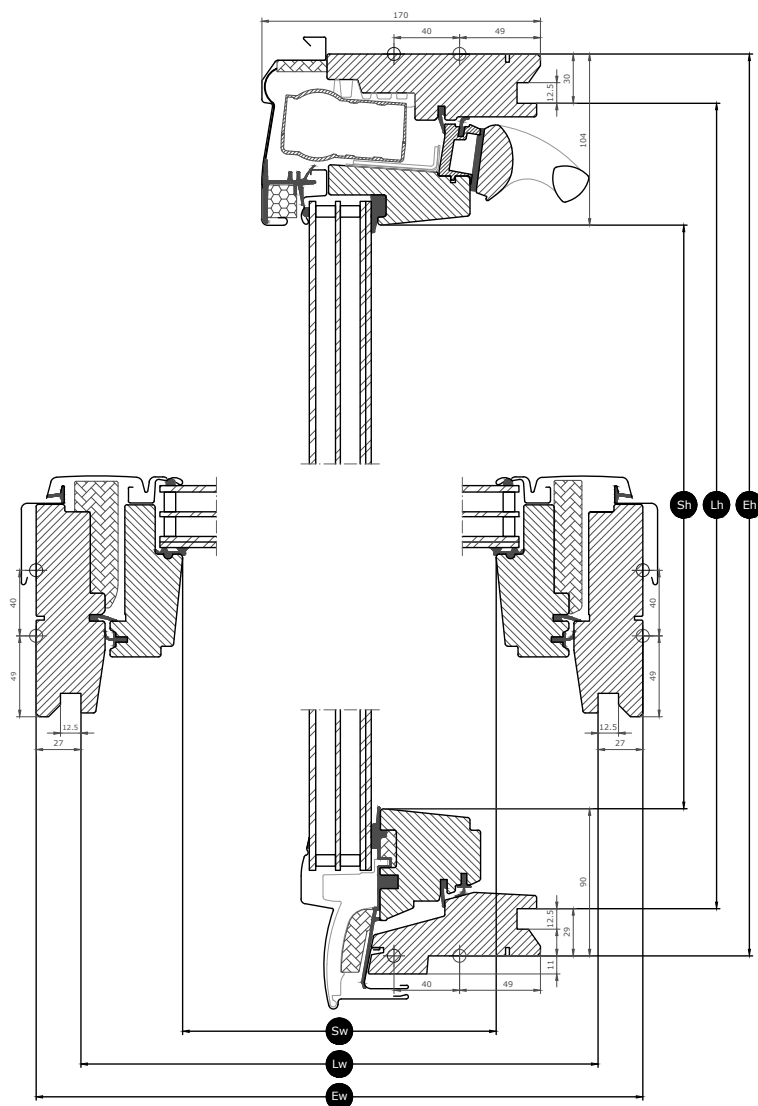
Width		MK--	PK--	SK--	UK--
Sw	Sash aperture width	601	763	961	1161
Lw	Distance between lining grooves, width	725	887	1085	1285
Ew	External frame width	780	942	1140	1340

Height		--04	--06	--08
Sh	Sash aperture height	784	984	1204
Lh	Distance between lining grooves, height	919	1119	1339
Eh	External frame height	978	1178	1398

Glazing features

	Glazing 66SG	Glazing 70
☀ °C **Solar protection**	★★★☆	★★★☆
Security	★★☆☆	★★☆☆
Safety lamination	✓	✓
Toughened glass	✓	✓
☀ UV **UV filter**	✓	✓
Rain noise reduction	✓	✓
Easy-to-clean	✓	
Anti-dew	✓	

Glazing structure

Glazing variant	Glazing unit	Variant composition
Glazing 66SG	Triple-glazed	6.8mm laminated float glass - 13mm Argon - 3mm heat strengthened glass - 13mm Argon - 4mm toughened glass
Glazing 70	Double-glazed	6.8 mm laminated float glass - 16 mm Argon - 4 mm toughened glass

Technical values for the window

Overview of technical values for the product, covering among other, CE marking in accordance with EN 14351-1.

Window characteristics	Glazing 66SG	Glazing 70
	Performance	
Thermal transmittance	1.0 W/(m²K)	1.3 W/(m²K)
Light transmittance	0.62	0.68
Total solar energy transmittance	0.44	0.46
Sound insulation	37(-2;-4)	35(-1;-3)
Air permeability	3	3
External fire performance - British	AC	AC
External fire performance - European	npd	npd
Impact resistance	NPD	npd
Load-bearing capacity of safety devices	npd	npd
Reaction to fire	C-s1,d2	C-s1,d2
Resistance to snow load	**	**
Resistance to wind load	C3 (>SK08: NPD)	C3 (>SK08: NPD)
Water tightness	E900	E900

Resistance to snow load = ** See glazing composition

NPD: No performance determined

	Aerodynamic smoke ventilation area with KFD (Aa)	Aerodynamic smoke ventilation area without KFD (Aa)	Geometric smoke ventilation area Av
MK04	0.36 m²	0.19 m²	0.63 m²
MK06	0.46 m²	0.29 m²	0.77 m²
MK08	0.59 m²	0.43 m²	0.92 m²
PK06	0.53 m²	0.30 m²	0.95 m²
PK08	0.68 m²	0.46 m²	1.14 m²
SK06	0.61 m²	0.28 m²	1.17 m²
SK08	0.77 m²	0.44 m²	1.40 m²
UK04	0.54 m²	0.16 m²	1.13 m²
UK08	0.83 m²	0.38 m²	1.67 m²
MK04	0.36 m²	0.19 m²	0.63 m²
MK06	0.46 m²	0.29 m²	0.77 m²
MK08	0.59 m²	0.43 m²	0.92 m²
PK06	0.53 m²	0.30 m²	0.95 m²

Interior finish

Material Description	Clear lacquer Finished with triple coat, clear lacquered.	White-painted Finished with triple coat, white painted.
Colour code NCS, inner surface	No colour code	S 0500-N
Colour code nearest RAL, inner surface	No colour code	9003

Exterior covers

Material Description	Aluminium, dark grey Dark grey	Untreated copper
Colour code NCS, outer surface	S 7500-N	No colour code
Colour code nearest RAL, outer surface	7043	No colour code

Cleaning and maintenance

Frame and sash can be cleaned with ordinary household cleaners. If necessary, the outer glass surface is cleaned from the outside.
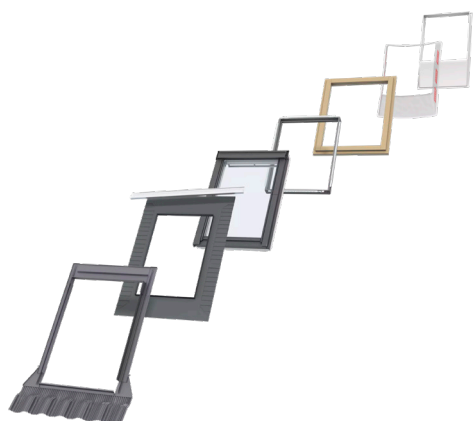

VELUX repair and maintenance kits are available.

Guarantee period

All electrical components have a 3 year guarantee periodThe full terms and conditions of the VELUX Product Guarantee are available on our website www.velux.co.uk or www.velux.ie

Flashings and installation products

Flashings
Install the VELUX roof window in virtually any roofing material by using genuine VELUX flashing solutions. Our flashings are designed specifically for the exact size and shape of the roof windows to create perfect, watertight fit. Flashings can also be used to combine multiple roof windows.

Installation products
Ensure a proper installation and an air- and watertight connection between the window and roof with VELUX installation products. All installation products are designed to perfectly fit the roof window for a reliable and durable result.

Further information

We reserve the right to make technical changes.

For more information on our products, please visit https://www.velux.co.uk or https://www.velux.ie.

Technical information

	Installation and use	The window comes complete with installation instructions, two-level installation brackets and screws (in Beipack) to be used for installation. The window is classified in protection class IP44. The window operator is hidden in the top cover and functions at temperatures between -10 °C and +60 °C.
		Installation in rooms with a high level of humidity must comply with relevant regulations (contact a qualified electrician if necessary).
	Window opening	Opens (electrically) 200 mm for comfort ventilation. Opens approximately 90° when activated by smoke ventilation system.
	Compatibility	Compatible with VELUX smoke ventilation control systems KFX 210-214 or KFC 210/220. For safety reasons, It is not recommended to fit any blinds or shutters on our smoke ventilation roof windows. Not compatible with io-homecontrol®
	Connection	The motor is supplied with a 4 m long, 2-wire, silicone cable (2 x 0.75 mm²).
		The cable can be connected to control units KFX 210-214 or KFC 210/220 with an isolated 3-core cable to allow for cable monitoring. The maximum cable length and prescribed cross-sectional sizes are:
		Length up to 33 m: 3 x 1,5 mm² Length up to 56 m: 3 x 2,5 mm² Length up to 89 m: 3 x4 mm² Length up to 134 m: 3 x 6 mm²
Rain sensor (add on)	**Materials**	Gold-coated sensor, Grey (RAL 7022)
	Size and weight description	N/A
	Power consumption	24V DC
Window operator, smoke ventilation	**Materials**	Zinc housing, Signal grey, anti-site bow chain of steel, Dacromet coating
	Size and weight description	576 x 124 x 68 mm (W x H x D) – 3,654 kg
	Power consumption	If the window is connected to an external control system, the requirements to the connection are 24 V dc and 2.5 A.
	Motor capacity	Traction capacity: Min 600 N Pressure capacity: Min 500 N