

# VELUX roof window GGL

Glazing 50



The original VELUX top-operated, centre-pivot roof window GGL is easy to operate and gives you the freedom to place furniture underneath. The innovative top control bar allows you to install the window at a lower position to get an excellent view while standing and even when seated.

- Open the top control bar to the ventilation position for fresh air through a closed window.
- Refresh your home by slightly opening the window and fixing it in the top bushing.
- Easily rotate the window 180° for safe cleaning of the outer glass from the inside.
- Removable and cleanable ventilation filter protects your home from dust and insects while ventilating.
- Maintenance-free exterior covers increase peace of mind throughout the lifetime of the roof window.
- The exclusive top control bar complements the window for a modern, elegant look.
- Upgrade to a remote-controlled mains- or solar-powered motor for extra convenience.



## Application guidance

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The window can be installed in roof pitches between 15° and 90° to the horizontal.



Manually top-operated, centre-pivot roof windows make it possible to place furniture directly below the window without obstructing the window's operation. We recommend an installation height that allows for a clear sight line to the outside from both a standing and seated position. Please note that the optimum window height depends on the roof pitch.

## Available sizes and daylight area

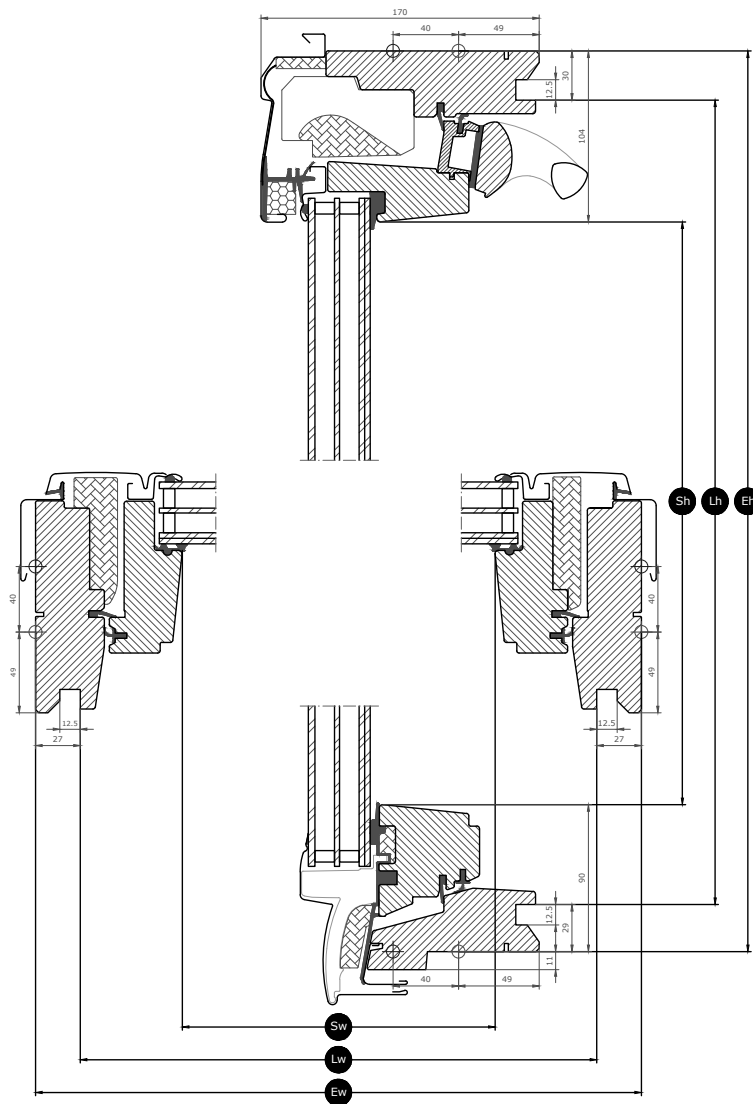
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	780 mm
1600	GGL MK10  (0.85) [0.94]

All measurements are in mm. ( ) = Effective daylight area, m<sup>2</sup> [ ] = Geometric free area, m<sup>2</sup>

# Cross section dimensions












Please note that the view of the cross section is from bottom to top



Width		MK--
Sw	Sash aperture width	601
Lw	Distance between lining grooves, width	725
Ew	Exterior frame width	780

Height		--10
Sh	Sash aperture height	1406
Lh	Distance between lining grooves, height	1541
Eh	Exterior frame height	1600

## Glazing features

Glazing 50		
	<b>Heat insulation</b> The low energy glazing unit reduces heat loss through the window and enhanced indoor comfort.	$U_g = 1.0$
	<b>Solar gain</b> In colder climates and in rooms with large window areas, solar gain provides a better indoor climate during winter periods.	0.46
	<b>Solar protection</b> In warm climates and in rooms with large window areas, a sun protective glazing unit provides a better indoor climate during summer periods.	★★★★☆
	<b>Security</b> Thicker laminated inner glass increases resistance to manual attack (burglary).	N/A
	<b>Safety lamination</b> Prevents glass from falling into the room in case of accidental breakage.	
	<b>Toughened glass</b> Adds strength to the outer glass surface to protect from wayward balls and extreme weather such as heavy storms and hail.	✓
	<b>UV filter</b> Protects your interior furnishings from fading due to the sun's harmful UV rays.	
	<b>Rain noise reduction</b> Rain noise reduction creates a barrier between the window and the weather outside for undisturbed moments during rainy days – or nights.	
	<b>Easy-to-clean</b> Dirt-repellent coating lets you spend less time cleaning and more time enjoying the view.	
	<b>Anti-dew</b> The anti-dew coating significantly reduces the days with dew on the outer glass and thus gives you a clear view.	

### Glazing structure

Glazing unit	Composition (from inside to outside)
Double-glazed	4 mm float glass - 16 mm Argon - 4 mm toughened glass

## Technical values for the window

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

Window characteristics	Performance
Thermal transmittance (U-value)	1.3 W/(m <sup>2</sup> K)
Light transmittance (τ <sub>v</sub> )	0.69
Total solar energy transmittance (g-value)	0.46
Sound insulation (R <sub>w</sub> )	31(-2;-5)
Air permeability, [class]	4
External fire performance - British [class]	AC
External fire performance - European [class]	npd
Impact resistance [class]	3
Load-bearing capacity of safety devices	✓
Reaction to fire [class]	C-s1,d0
Resistance to snow load	See glazing composition
Resistance to wind load [class]	C3 (>SK08: NPD)
Water tightness [class]	E900

NPD: No Performance Determined

## Visible features



### Control bar

The ergonomic aluminum control bar allows effortless opening and closing of the window. It can also lock the ventilation flap in the ventilation position.



### Blind bracket, manual

Easily install blinds on the window without the need for extra tools. Simply click on the blind in the pre-fitted brackets.



### Ventilation flap

The full-width ventilation flap can be used for ventilation even with a closed window. The ventilation flap is connected to the top sash with the lock casing.



### Frame hinge, centre-pivot, side

Durable hinge design allows for reliable operation and enables the sash to be rotated for easy cleaning of the outer glass.



### Interior insulation, frame top sides

Innovative ThermoTechnology™ insulation is integrated into the top frame sides of the window to increase energy-efficiency.



### Barrel bolt

The barrel bolt can be placed into the integrated barrel bolt bushing to secure the window for cleaning of outer glass surface or for safe ventilation.



### Headlock

When closed, the window is locked firmly into place by the headlock.



### Data plate

Every VELUX roof window has a unique data plate with information that can be used to look up CE marking documentation, when purchasing accessories or in case of service or replacement.

## Interior finish

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Material Description	Clear lacquer Finished with triple coat, clear lacquered.
Colour code NCS, inner surface	No colour code
Colour code nearest RAL, inner surface	No colour code

## Exterior covers

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The availability of the variants listed below may change. For the most accurate and up to date information, please refer to the current product catalogue or price list.

Material Description	Aluminium, dark grey Dark grey
Colour code NCS, outer surface	S 7500-N
Colour code nearest RAL, outer surface	7043

## Cleaning and maintenance

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To clean the outer glass surface from the inside, rotate sash manually and secure in cleaning position with barrel bolts.



VELUX repair and maintenance kits are available.

## Guarantee period

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## Flashings and installation products

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### **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.

## Blinds, awnings and shutters

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Complete the VELUX roof window installation with roller shutters and awning blinds for heat protection and interior blinds for light dimming, blackout and insect protection. Choose from a wide range of manually operated or remote-controlled products that are made to fit the particular window type and size. Please contact your local VELUX sales company for more details about compatibility.

## Further information

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We reserve the right to make technical changes.

For more information on our products, please visit <https://velux.com>.