

VELUX bottom-operated roof window GGL-B

VELUX®

Glazing 70



The VELUX bottom-operated, centre-pivot roof window GGL-B offers the great essential functionalities and good energy efficiency of our top-operated GGL. Bottom operation makes it easy to operate the window when installed in a higher position e.g. 130-160 cm above floor level, for example due to a high knee wall.

- The handle in the bottom part of the window makes the operation convenient when installation is 130-160 cm above floor level.
- Same high quality and design as you know from the original VELUX roof window GGL.
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- Removable and cleanable ventilation filter protects your home from dust and insects while ventilating.
- Quickly and easily add blinds by simply clicking them into the pre-fitted brackets
- Adjust the bottom handle position to ventilate your home without opening the window.
- Open the top control bar to the ventilation position for fresh air through a closed window.
- Easily rotate the window 180° for safe cleaning of the outer glass from the inside.



Application guidance

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



Manual bottom-operated, centre-pivot roof windows are our recommended solution when the window needs to be placed in a high position (130-160 cm) above floor level, for instance because of a high knee wall. In installations in combination with façade elements or as the lower part of a combi installation, bottom operation will be comfortable, as the handle will be easy to reach for opening and closing the window.

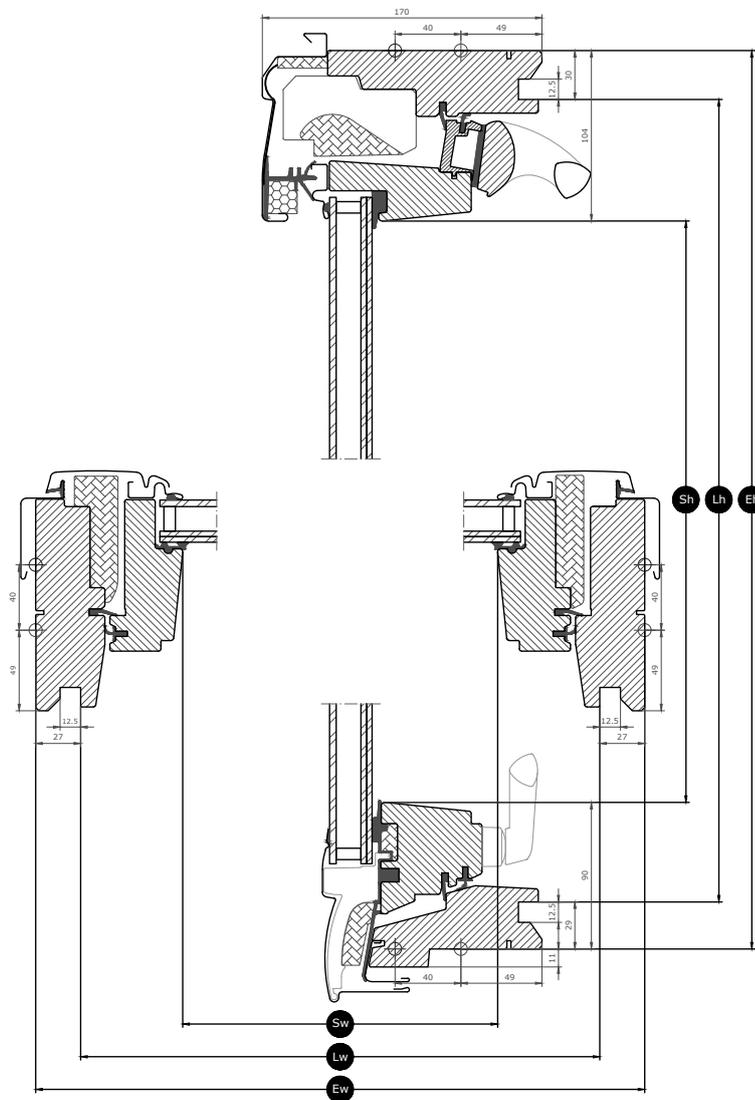
Available sizes and daylight area

| | 550 mm | 780 mm | 942 mm | 1140 mm | 1340 mm |
|---------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 778 mm | GGL CK02 (0.22) [0.26] | | | | |
| 978 mm | | GGL MK04 (0.47) [0.53] | | | GGL UK04 (0.91) [0.98] |
| 1178 mm | | GGL MK06 (0.59) [0.66] | GGL PK06 (0.75) [0.83] | GGL SK06 (0.95) [1.03] | |
| 1398 mm | | GGL MK08 (0.72) [0.81] | GGL PK08 (0.92) [1.01] | | |
| 1600 mm | | | GGL PK10 (1.07) [1.17] | | |

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

Cross section dimensions

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



| Width | | CK-- | MK-- | PK-- | SK-- | UK-- |
|-------|--|------|------|------|------|------|
| Sw | Sash aperture width | 371 | 601 | 763 | 961 | 1161 |
| Lw | Distance between lining grooves, width | 495 | 725 | 887 | 1085 | 1285 |
| Ew | Exterior frame width | 550 | 780 | 942 | 1140 | 1340 |

| Height | | --02 | --04 | --06 | --08 | --10 |
|--------|---|------|------|------|------|------|
| Sh | Sash aperture height | 584 | 784 | 984 | 1204 | 1406 |
| Lh | Distance between lining grooves, height | 719 | 919 | 1119 | 1339 | 1541 |
| Eh | Exterior frame height | 778 | 978 | 1178 | 1398 | 1600 |

Glazing features

| Glazing 70 | |  |
|---|---|---|
|  | Heat insulation The low energy glazing unit reduces heat loss through the window and enhanced indoor comfort. | $U_g = 1.0$ |
|  | Solar gain In colder climates and in rooms with large window areas, solar gain provides a better indoor climate during winter periods. | 0.46 |
|  | Solar protection In warm climates and in rooms with large window areas, a sun protective glazing unit provides a better indoor climate during summer periods. | ★★★★☆ |
|  | Security Thicker laminated inner glass increases resistance to manual attack (burglary). | ★★★★☆ |
|  | Safety lamination Prevents glass from falling into the room in case of accidental breakage. | ✓ |
|  | Toughened glass Adds strength to the outer glass surface to protect from wayward balls and extreme weather such as heavy storms and hail. | ✓ |
|  | UV filter Protects your interior furnishings and flooring from fading due to the sun's harmful UV rays. | ✓ |
|  | Rain noise reduction Rain noise reduction creates a barrier between the window and the weather outside for undisturbed moments during rainy days – or nights. | ✓ |
|  | Easy-to-clean Dirt-repellent coating lets you spend less time cleaning and more time enjoying the view. | |
|  | Anti-dew 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 | 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 | Performance |
|--|--------------------------|
| Thermal transmittance (U-value) | 1.3 W/(m ² K) |
| Light transmittance (τ _v) | 0.68 |
| Total solar energy transmittance (g-value) | 0.46 |
| Sound insulation (R _w) | 35(-1;-3) |
| Air permeability, [class] | 4 |
| External fire performance - British [class] | NPD |
| External fire performance - European [class] | NPD |
| Impact resistance [class] | NPD |
| Load-bearing capacity of safety devices | ✓ |
| Reaction to fire [class] | C-s1,d2 |
| Resistance to snow load | See glazing composition |
| Resistance to wind load [class] | C3 |
| Water tightness [class] | 9A |

NPD: No Performance Determined

Visible features



Operating handle, centre-pivot, bottom-operated

Easy to operate handle with two-point locking mechanism and integrated ventilation position.



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.



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.



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.



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

| Material Description | White-painted Finished with triple coat, white painted. |
|--|--|
| Colour code NCS, inner surface | S 0500-N |
| Colour code nearest RAL, inner surface | 9003 |

Exterior covers

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



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



VELUX repair and maintenance kits are available.

Guarantee period

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.

Blinds, awnings and shutters

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

We reserve the right to make technical changes.

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