

## **Product information**

# VELUX Centre-pivot pine roof window GGL



## Product description

- High quality natural pinewood coated with impregnation and layers of water-based acrylic white paint or clear lacquer
- Top control bar for easy operation even with furniture under the window
- Ventilation flap and integrated dust and insect filter
- Maintenance-free exterior covers

#### Roof pitch

• Can be installed in roof pitches between 15° and 90°

#### Materials

- · Laminated pinewood
- Glass
- Lacquered aluminium, copper or zinc
   VELUX ThermoTechnology™ insulation

#### **Downloads**

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

## Certifications



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

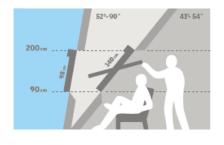
We are aware of the REACH regulation and acknowledge the obligations. No products are obliged to be registered in accordance to REACH and none of our products contain any Substances of Very High Concern.



## Available sizes and daylight area

GGL BK04	(0.22) GGL					
	GGL					
	CK04	GGL FK04	GGL MK04	GGL PK04		GGL UK04
(0.23)	GGL CK06	GGL FK06	GGL MK06	GGL PK06	GGL SK06	(0.91)
		GGL FK08	GGL MK08	GGL PK08	GGL SK08	GGL UK08
			GGL MK10	GGL PK10	GGL SK10	GGL UK10
	(0.23)	GGL	(0.37) (0.47)  GGL FK08	GGL CK06 FK06 GGL MK06  (0.37) (0.47) (0.59)  GGL FK08 MK08  (0.58) (0.72)  GGL	GGL CK06 FK06 MK06 PK06  (0.37) (0.47) (0.59) (0.75)  GGL GGL MK08 PK08  (0.58) (0.72) (0.92)  GGL MK10 PK10	GGL

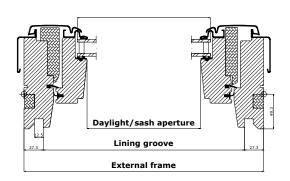
## ( ) = Effective daylight area, $m^2$



Centre-pivot roof windows make it possible to place furniture directly below the window without obstructing operation of the window.

For windows to be placed within reach, try to allow for a clear view when standing and when seated. Note that the optimum window height depends on the roof pitch.

## Width

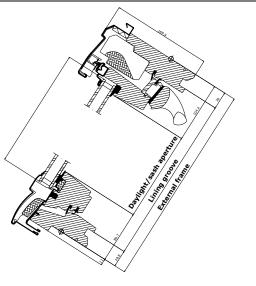


## Lining measurements

Size	Width (mm)
BK	417
CK	495
FK	605
MK	725
PK	887
SK	1085
UK	1285

Size	Height (mm)
02	719
04	919
06	1119
08	1339
10	1549

Height





## Technical values

	70	68	66	62	69	67
Uw [W/m²K]	1.3	1.1	1.0	0.92	1.1	0.83
Ug [W/m²K]	1.0	0.7	0.6	0.5	0.7	0.5
Rw [dB]	35	35	37	42	35	38
g[]	0.46	0.55	0.44	0.52	0.27	0.44
₹V [ ]	0.68	0.73	0.62	0.73	0.57	0.62
τυν [ ]	0.05	0.05	0.05	0.05	0.05	0.05
Air permeability [class]	4	4	4	4	4	4

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

## Glazing structure

	70	68	66	62	69	67
Inner glass pane	2 x 3 mm laminated float with low ε coating	$2 \times 3 \text{ mm}$ laminated float with low $\epsilon$ coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	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	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float	3 mm heat strengthened float with low ε coating
Outer glass pane	4 mm toughened with coatings	4 mm toughened with coatings	4 mm toughened with coatings	8 mm toughened with coating	4 mm toughened with coatings	4 mm toughened with coatings
Cavity	15 mm	2 x 12 mm	2 x 13 mm	2 x 11 mm	2 x 12 mm	2 x 12 mm
Glass panes	Double	Triple	Triple	Triple	Triple	Triple
Gas filling	Argon	Argon	Argon	Krypton	Argon	Krypton



## Glazing features

		70	68	66	62	69	67
*	Heat insulation Low energy glazing provides reduced heat loss through the window and enhanced indoor comfort.	•	••	•••	•••	••	•••
1	Solar gain In the wintertime, the heat from the sun entering through the windows is a usable solar gain.	•••	••	••	••	•	••
1	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 sunscreening 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.	••	••	•••	•••	••	•••
1	Security Thicker laminated inner glass pane designed to increase resistance to manual attack (burglary).	•	•	•	•	•	•
(D)	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.	/	1	1	1	1	1
****	Outside strength Toughened outer glass pane makes your glazing more resistant to hail, heavy wind and snow loads.	<b>√</b>	/	/	<b>/</b>	/	/
	Delayed fading of materials Inner laminated glass protects materials behind the glass against UV radiation and therefore delays fading of the materials.	/	/	1	/	1	/
<b>(G)</b>	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.	/	1	1	1	1	/
	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.			1			/
	Anti-dew The anti-dew coating significantly reduces the days with dew on the outer glass pane and thus gives you a clear view.			1	1		/

• Good •• Better ••• Best Feature included in glazing variant



## Technical values, ventilation through ventilation flap

	Windows with double or triple glazing						
Property	Width						
	CK	FK	МК	PK	SK	UK	
Air flow characteristics [I/s]	1.9	2.3	2.8	3.4	4.1	4.8	
Air flow exponent [-]	0.53	0.53	0.53	0.53	0.53	0.53	
Ventilation capacity at 4 Pa [I/s]	4.0	4.8	5.8	7.1	8.5	10.0	
Ventilation capacity at 8 Pa [I/s]	5.7	6.9	8.4	10.2	12.3	14.5	
Ventilation capacity at 10 Pa [I/s]	6.4	7.8	9.5	11.5	13.9	16.3	
Ventilation capacity at 20 Pa [I/s]	9.3	11.3	13.7	16.6	20.1	23.5	
Equivalent area through ventilation flap [mm2]	2600	3100	3700	4600	5600	6600	
Geometrical free area [mm2]	2800	3700	4500	6100	7200	10600	

Please note that the glazing type 62 has negligible ventilation through the ventilation flap due to the construction of the window.



## Visible features





- Lock casing
- electro-galvanised steelcolour: "silver"



- 2 Data plate
- window type, size and variant codeCE marking
- production codeQR code



- 3 Click-on covers
- lacquered aluminium



- 4 Control bar
- anodised aluminium



- **5** Excellent insulation
- expanded polystyrene
- colour: grey charcoal



- 6 Barrel bolt
- plastic
- colour: grey
- steel
- colour: "silver"



- Hinges with friction
- electro-galvanised steel
- colour: "silver"



- **Barrel bolt** Barrer bar bushings
- plastic
- colour: white/grey



## 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	<b>RAL</b> nearest standard colour	
Lacquered aluminium (-0) grey	S 7500-N	7043	
Lacquered aluminium (-5) black	S 9000-N	9005	
<b>Copper</b> (-1)	-	-	
Titanium zinc (-3)	-	-	

Special colour requests, please contact velux.co.uk

## **Interior finish**

White paint	Impregnation and layers of water-based acrylic lacquer and paint, NCS standard colour: S 0500-N, nearest RAL standard colour: 9003.
Clear lacquer	Impregnation and layers of water-based acrylic lacquer

Special colour requests, please contact 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 mains/solar powered versions Available in manual and mains powered versions

Available in manual and mains powered versions

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

## Flashings and installation products



- ED- for single installation EB- for twin 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 0000Linings LS- (incl BBX)

## Control options



## VELUX INTEGRA®

 Solar upgrade kit KSX 100K can be fitted to upgrade manual windows to obtain a series of benefits



• Telescopic rod

## Note

We reserve the right to make technical changes.

For more information on roof window GGL and other VELUX products, please visit www.velux.co.uk