VELUX®

Product information
Top-operated centre-pivot pine roof window GGL

Product description

- High quality natural pinewood coated with impregnation and layers of water-based acrylic clear lacquer or white paint

- 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.rs.

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 contain any Substances of Very High Concern.
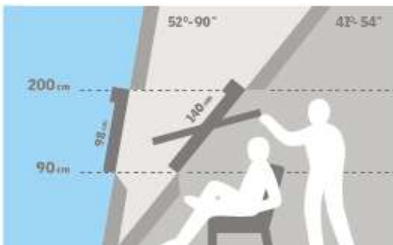
Available sizes and daylight area

	472 mm	550 mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm		GGL CK02 (0.22)					
978 mm	GGL BK04 (0.23)	GGL CK04 (0.29)	GGL FK04 (0.38)	GGL MK04 (0.47)	GGL PK04 (0.60)		GGL UK04 (0.91)
1178 mm		GGL CK06 (0.37)	GGL FK06 (0.47)	GGL MK06 (0.59)	GGL PK06 (0.75)	GGL SK06 (0.95)	
1398 mm			GGL FK08 (0.58)	GGL MK08 (0.72)	GGL PK08 (0.92)	GGL SK08 (1.16)	GGL UK08 (1.40)
1600 mm				GGL MK10 (0.85)	GGL PK10 (1.07)	GGL SK10 (1.35)	GGL UK10 (1.63)

( ) = Effective daylight area, m^2

Lining measurements

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

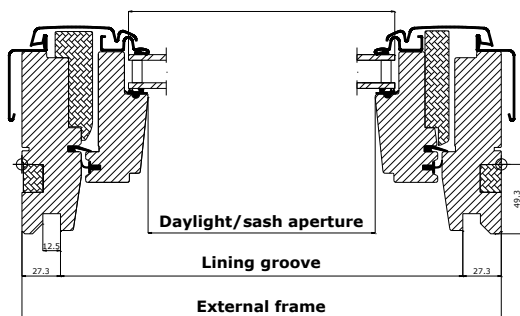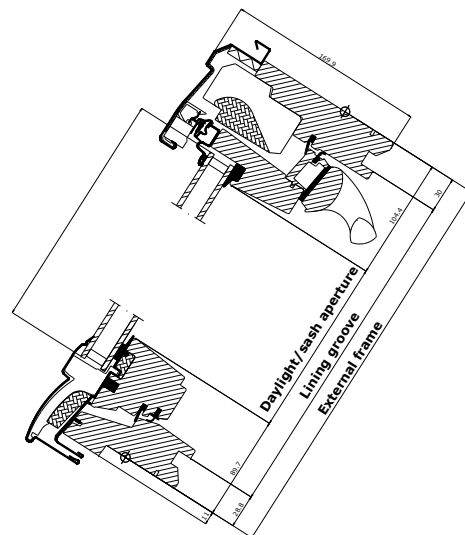| Size	Height (mm)
--02	719
--04	919
--06	1119
--08	1339
--10	1549

Top-operated 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

Daylight/sash aperture
Lining groove
External frame

Height

Daylight/sash aperture
Lining groove
External frame

Technical values

	--50	--70	--60	--66	--62
U_w [W/m²K]	1.3	1.3	1.3	1.0	0.83
U_g [W/m²K]	1.0	1.0	1.0	0.5	0.5
R_w [dB]	32	35	37	37	42
g [ ]	0.46	0.46	0.30	0.51	0.52
τ_v [ ]	0.69	0.68	0.62	0.71	0.70
τ_{uv} [ ]	0.22	0.05	0.05	0.05	0.05
Air permeability [class]	4	4	4	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

	--50	--70	--60	--66	--62
Inner glass pane	4 mm 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	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
Outer glass pane	4 mm toughened	4 mm toughened	6 mm toughened with coatings	4 mm toughened with coatings	8 mm toughened with coating
Cavity	16 mm	15 mm	15 mm	2 x 12 mm	2 x 10 mm
Glass panes	Double	Double	Double	Triple	Triple
Gas filling	Argon	Argon	Argon	Krypton	Krypton

Glazing features

		--50	--70	--60	--66	--62
	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 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.	•	••	•••	•••	•••
	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. Sunscreening 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 glazing					
	Width					
	CK--	FK--	MK--	PK--	SK--	UK--
Air flow characteristics [l/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 [l/s]	4.0	4.8	5.8	7.1	8.5	10.0
Ventilation capacity at 8 Pa [l/s]	5.7	6.9	8.4	10.2	12.3	14.5
Ventilation capacity at 10 Pa [l/s]	6.4	7.8	9.5	11.5	13.9	16.3
Ventilation capacity at 20 Pa [l/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

Property	Windows with triple glazing					
	Width					
	CK--	FK--	MK--	PK--	SK--	UK--
Air flow characteristics [l/s]	1.2	1.3	1.5	1.7	2.1	2.4
Air flow exponent [-]	0.63	0.63	0.63	0.63	0.63	0.63
Ventilation capacity at 4 Pa [l/s]	2.8	3.1	3.5	4.1	4.9	5.7
Ventilation capacity at 8 Pa [l/s]	4.3	4.8	5.4	6.3	7.6	8.9
Ventilation capacity at 10 Pa [l/s]	4.9	5.5	6.2	7.3	8.2	10.2
Ventilation capacity at 20 Pa [l/s]	5.5	6.2	6.9	8.1	9.8	11.5
Equivalent area through ventilation flap [mm2]	2000	2200	2500	2900	3500	4100
Geometrical free area [mm2]	2800	3700	4500	6100	7200	10600

Visible features

1 **Lock casing**
- electro-galvanised steel
- colour: "silver"

2 **Data plate**
- window type, size and variant code
- CE marking
- production code
- QR 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"

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

8 **Barrel bolt bushings**
- plastic
- colour: 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	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.rs.

Interior finish

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

Special colour requests, please contact velux.rs.

Flashings and installation products

Flashings:
- 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 0000
- Linings LS- (incl BBX)
- Kit for lining LSG 1000 (incl BBX)

Note

We reserve the right to make technical changes.

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

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

Control options

VELUX INTEGRA®
- Solar upgrade kit KSX 100K can be fitted to upgrade manual windows to obtain a series of benefits
- Touch screen control pad

- Telescopic rod