

Product information Top-operated centre-pivot polyurethane roof window GGU



Product description

- High quality moulded polyurethane with white lacquer finish
- Top control bar for easy operation even with furniture under the window
- · Ventilation flap and integrated dust and insect filter
- · Maintenance-free interior surface
- · Maintenance-free exterior covers

Roof pitch

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

Materials

- Polyurethane around a timber core
- Glass
- Lacquered aluminium, copper or zinc
- \bullet VELUX ThermoTechnology $^{\text{TM}}$ insulation

Downloads

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

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

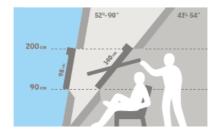
	472 mm	550 mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm		GGU CK02					
978 mm		GGU CK04	GGU FKO4	GGU MKO4			GGU UKO4
1178 mm		GGU CK06	GGU FK06	GGU MK06	GGU PK06	GGU SK06	(0027)
1398 mm		(0.37)	GGU FK08	GGU MK08	GGU PK08	GGU SK08	GGU UK08
1600 mm				GGU MK10	GGU PK10		

Lining measurements

Size	Width (mm)
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

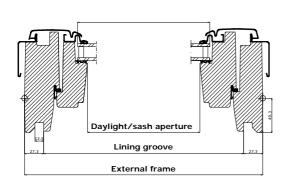
() = Effective daylight area, m^2



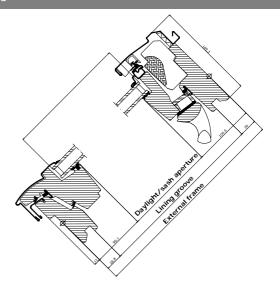
Top-operated centre-pivot roof windows make it possible to place furniture directly below the window without obstructing operation of the window.

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



Height





Technical values

	50	70	60	66	62
U _w [W/m²K]	1.3	1.3	1.2	1.0	0.81
Ug [W/m²K]	1.1	1.1	1.0	0.7	0.5
R _w [dB]	32	35	37	37	42
g[]	0.66	0.64	0.30	0.50	0.50
₹ []	0.80	0.79	0.61	0.69	0.65
τυν []	0.32	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	Argon	Krypton



Glazing features

		50	70	60	66	62
*	Heat insulation Low energy glazing provides reduced heat loss through the window and enhanced indoor comfort.	٠	•	••	•••	•••
3 1	Solar gain In the wintertime, the heat from the sun entering through the windows is a usable solar gain.	•••	•••	•	••	••
8	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 sun screening can be installed.			•••		
(1)	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).		•	•	•	•
	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. Sun screening products can further improve indoor summer comfort.	/	/	1	1	/
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.		/	/	/	/
****	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.		/	/	/	/
(G)	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



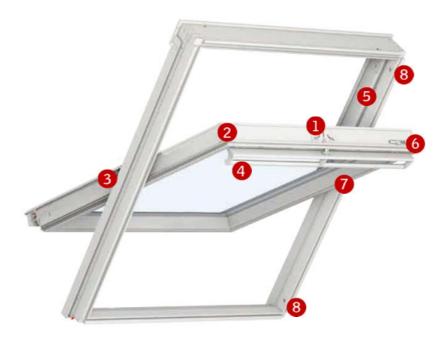
Technical values, ventilation through ventilation flap

	Windows with double glazing						
Property	Width						
	CK	FK	MK	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	

	Windows with triple glazing						
Property	Width						
	CK	FK	MK	PK	SK	UK	
Air flow characteristics [I/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 [I/s]	2.8	3.1	3.5	4.1	4.9	5.7	
Ventilation capacity at 8 Pa [I/s]	4.3	4.8	5.4	6.3	7.6	8.9	
Ventilation capacity at 10 Pa [I/s]	4.9	5.5	6.2	7.3	8.2	10.2	
Ventilation capacity at 20 Pa [I/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





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



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



- 3 Click-on covers
- lacquered aluminium



- 4 Control bar
- anodised aluminium



- Thermo**Technology**™
- 5 Excellent insulation
- expanded polystyrene
- colour: grey charcoalthermally modified timber



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



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



- 8 Barrel bolt bushings
- plastic
- colour: white



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.com.

Interior finish

White lacquer	Lacquer, white NCS standard colour: S 0500-N, nearest RAL standard colour: 9003.
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Blinds, awnings and shutters





Interior sun screening Blackout blind Roller blind Pleated blind Flying pleated blind Double pleated energy blind Venetian blind Duo blackout blind Exterior sun screening 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

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

Control options



VELUX INTEGRA®

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



• Telescopic rod

Note

We reserve the right to make technical changes.

For more information on roof window GGU and other VELUX products, please