

Product information

Centre-pivot white-painted 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
- VELÜX ThermoTechnology™ insulation

Downloads

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

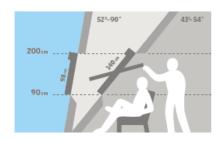
We are aware of the REACH regulation and acknowledge the obligations. No products are obliged to be registered in accordance to REACH and none of our products contain any Substances of Very High Concern.



Available sizes and daylight area

	472 mm	550 mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm		GGL CK02					
978 mm	GGL BK04	GGL CK04	GGL FK04	GGL MK04	GGL PK04		GGL UK04
1178 mm	(0.29)	(0.29) GGL CK06	(0.38) GGL FK06	(0.47) GGL MK06	(0.60) GGL PK06	GGL SK06	(0.91)
1398 mm			GGL FK08	GGL MK08	GGL PK08	GGL SK08	GGL UK08
1600 mm				GGL MK10	GGL PK10	GGL SK10	GGL UK10

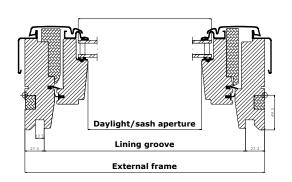
() = Effective daylight area, m²



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

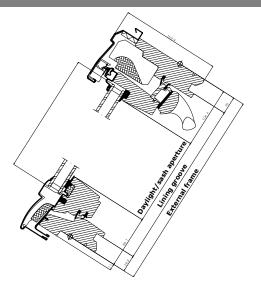


Lining measurements

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	60	66	62
Uw [W/m²K]	1.3	1.3	1.0	0.83
Ug [W/m²K]	1.0	1.0	0.5	0.5
Rw [dB]	35	37	37	42
g[]	0.46	0.30	0.51	0.52
τν []	0.68	0.62	0.71	0.70
τυν []	0.05	0.05	0.05	0.05
Air permeability [class]	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

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



Glazing features

		70	60	66	62
*	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.		•••		
(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. 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.	/	/	/	/
1111	Outside strength Toughened outer glass pane makes your glazing more resistant to hall, heavy wind and snow loads.	/	/	1	/
	Delayed fading of materials Inner laminated glass protects materials behind the glass against UV radiation and therefore delays fading of the materials.	/	1	1	/
(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.		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	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.			/	/

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



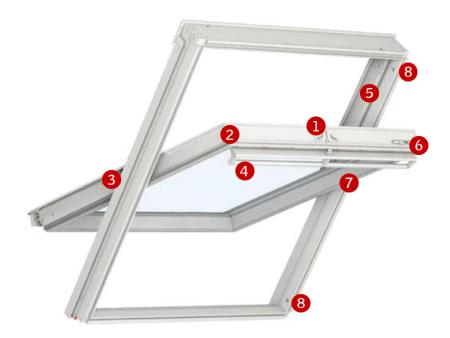
Technical values, ventilation through ventilation flap

	Windows with double glazing						
Property	Width						
	ск	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 [!/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						
	ск	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 code
- QR code



- 3 Click-on covers
- lacquered aluminium



- Control bar
- anodised aluminium



- Thermo**Technology**™
- insulation **Excellent**
- expanded polystyrenecolour: grey charcoal



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



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



- **Barrel bolt** 8 Barrer 2. bushings
- plasticcolour: 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

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 enquiries@velux.co.uk

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 enquiries@velux.co.uk

Blinds, awnings and shutters



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

Interior sun screening





- **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 of benefits
- Touch screen control pad



• 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



Product information

Centre-pivot white 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
- VELÜX Thermo**Technology** $^{\text{TM}}$ insulation

Downloads

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

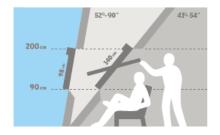
	472 mm	550 mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm		GGU CK02					
978 mm		GGU CK04	GGU FK04	GGU MK04			GGU UK04
1178 mm		GGU CK06	GGU FK06	GGU MK06	GGU PK06 (0.75)	GGU SK06	(0.71)
1398 mm			GGU FK08	GGU MK08	GGU PK08	GGU SK08	GGU UK08
1600 mm				GGU MK10	GGU PK10		

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				

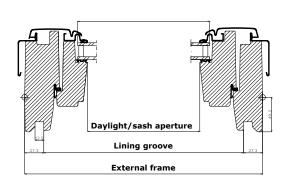
() = Effective daylight area, m²



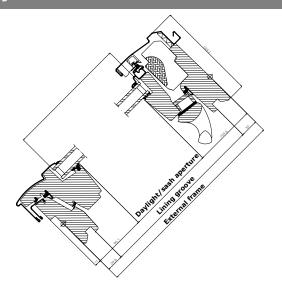
Centre-pivot roof windows make it possible to place furniture directly below the window without obstructing operation of the window.

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

	70	60	66	62
Uw [W/m²K]	1.3	1.3	1.0	0.81
U _g [W/m²K]	1.0	1.0	0.5	0.5
Rw [dB]	35	37	37	42
g[]	0.46	0.30	0.51	0.5 2
τν []	0.68	0.62	0.71	0. 70
τυν []	0.05	0.05	0.05	0.05
Air permeability [class]	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

	70	60	66	62
Inner glass pane	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 streng float with low a		3 mm heat strengthened float with low ε coating
Outer glass pane	4 mm toughened	ened 6 mm toughened 4 mm toughened with coatings with coatings		8 mm toughened with coating
Cavity	15 mm	15 mm 15 mm		2 x 10 mm
Glass panes	Double	Double	Triple	Triple
Gas filling	Argon	Argon	Krypton	Krypton



Glazing features

		70	60	66	62
*	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.		•••		
(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. Sunscreening 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.	/	✓	1	/
3::4	Outside strength Toughened outer glass pane makes your glazing more resistant to hall, 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.	/	/	/	/
(3)	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.		1	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.			/	/

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



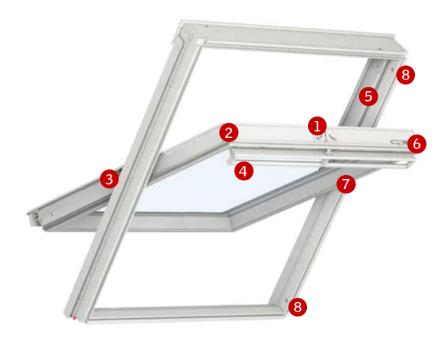
Technical values, ventilation through ventilation flap

	Windows with double 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	

	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 code
- QR code



- 3 Click-on covers
- lacquered aluminium



- Control bar
- anodised aluminium



- Thermo**Technology**™
- **6** 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 enquiries@velux.co.uk

Interior finish

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

Special colour requests, please contact enquiries@velux.co.uk

Blinds, awnings and shutters



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

Interior sun screening



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 visit www.velux.co.uk