

# **Product information** Bottom-operated top-hung polyurethane roof window GPU



# Product description

- High quality moulded polyurethane with white lacquer finish
- The sash can remain open in any position up to an angle of
- Bottom handle for convenient operation
- · Ventilation flap and integrated dust and insect filter
- Maintenance-free interior surface
- Maintenance-free exterior covers

### Roof pitch

- $\bullet$  Can be installed in roof pitches between 15° and 55°
- Installation in roof pitches from 55° up to 75° is possible, but specially manufactured springs must be ordered

#### Materials

- Polyurethane around a timber core
- Glass
- Lacquered aluminium, copper or zinc
   VELUX ThermoTechnology™ 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

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	550					
	mm	mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm							
978 mm		GPU CK04		GPU MKO4			
1178 mm		GPU CK06	GPU FK06	GPU MK06	GPU PK06	GPU SK06	
		(0.57)	GPU	GPU	GPU	GPU	GPU
1398 mm			FK08 (0.58)	MK08	<b>PKO8</b> (0.92)	SK08	UK08 (1.40)
			, ,	GPU	GPU	GPU	, ,
1600 mm				MK10	PK10	SK10	
				(0.85)	(1.07)	(1.35)	

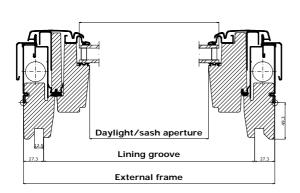
### ( ) = Effective daylight area, m<sup>2</sup>



A top-hung roof window with bottom operation is ideal if you have to, or wish to, place your window in a high position, for instance in connection with a high knee wall.

For an unobstructed panoramic view, the window opens outwards on its top hinges to an angle of  $45\ensuremath{^\circ}.$ 

# Width

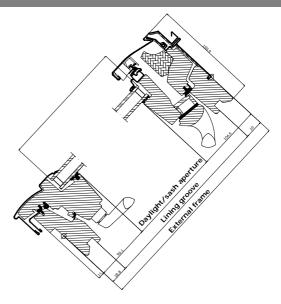


# Lining measurements

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

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

# Height





# Technical values

	50	70	60	66
U <sub>w</sub> [W/m²K]	1.3	1.3	1.2	1.0
U <sub>g</sub> [W/m²K]	1.1	1.1	1.0	0.7
R <sub>w</sub> [dB]	32	35	37	37
g[]	0.66	0.64	0.30	0.50
₹ []	0.80	0.79	0.61	0.69
τυν [ ]	0.32	0.05	0.05	0.05
Air permeability [class]	4	4	4	4

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

# Glazing structure

	50	70	60	66
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
Middle glass pane	-	-	-	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
Cavity	16 mm	15 mm	15 mm	2 x 12 mm
Glass panes	Double	Double	Double	Triple
Gas filling	Argon	Argon	Argon	Argon



# Glazing features

		50	70	60	66
*	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.	•••	•••	•	••
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).		•	•	•
8	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.		/	<b>✓</b>	<b>✓</b>
****	Outside strength Toughened outer glass pane makes your glazing more resistant to hail, heavy wind and snow loads.	1	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
<b>(9)</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.			/	
*	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

● 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
- colour: "silver"



Thermo**Technology**™

- Excellent insulation

- expanded polystyrene
   colour: grey charcoal
   thermally modified timber



- Bottom handle
- anodised aluminium



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



- 6 Barrel bolts
- plasticcolour: white
- steel
- colour: "silver"



- 3 Click-on covers
- lacquered aluminium



- 4 Control bar
- anodised aluminium



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



- 8 Barrel bolt bushings
- plasticcolour: white



# Cleaning and maintenance



To clean the outer pane from the inside, rotate sash and secure in cleaning position with barrel bolts.



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 range.

# Flashings and installation products



#### Flashings:

- ED- for single installationEB- for twin installation
- EK- for combi installation

Available for standard and recessed

- 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 GPU and other VELUX products, please visit velux.com.