

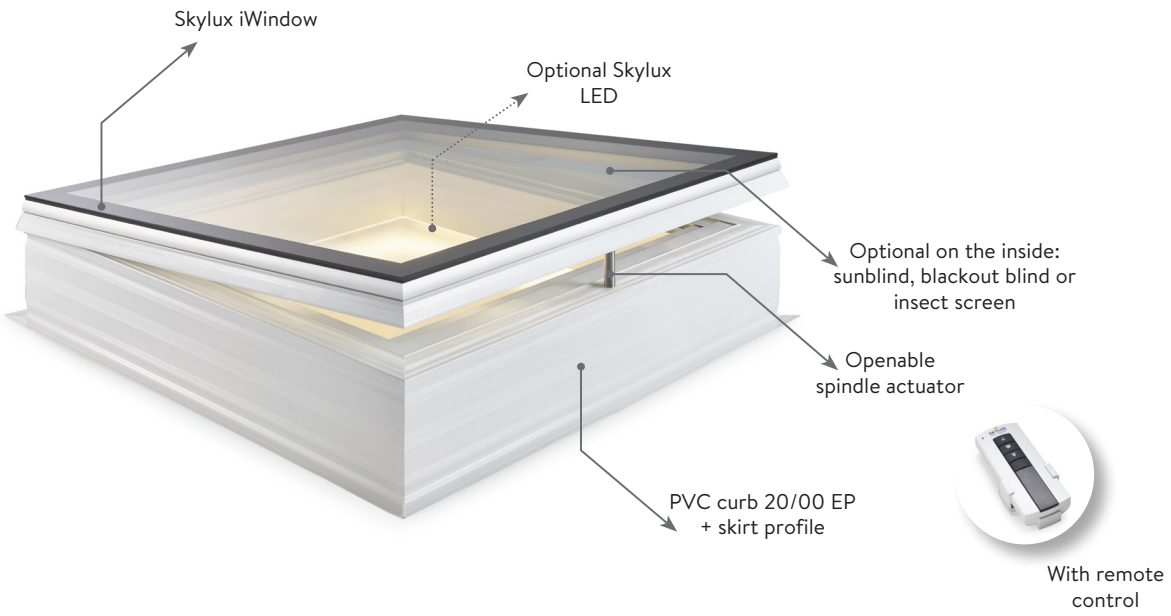
TECHNICAL FILE

Skylux® iWindow2™ & iWindow3™

Openable glass skylight

SKYLUX®
Hello daylight!

19-08-2021



General product description

The Skylux® iWindow **openable (O)** is a super insulating flat glass skylight with a sleek design, excellent U-values and an optimal light spread for applications in flat roofs. It's composed of a compact and insulating PVC frame with super insulating safety glass (iWindow2 with double safety glazing HR++/iWindow3 with triple safety glazing HR+++) and a sleek anodised aluminium frame. The glass is tempered and has a ceramic rim to obtain an aesthetic and smooth visual integration into the roof.

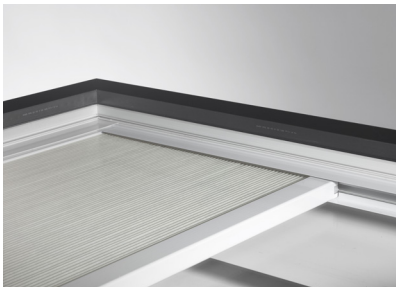
The finished iWindow2 or iWindow3 as glass dome in **openable (O)** model is premounted on a Skylux PVC curb 20/00 EP (+ 20/00 EP-S). The PVC curb has a built-in detection unit with remote control. Depending on the choice of roofing, the flashing profile and corner profiles can be used to finish the roofing properly up to the 20/00 curb. The openable model (O) has a built-in spindle actuator and is suited for ventilation. Optionally you can also opt for a rain detector.

Possible options are:

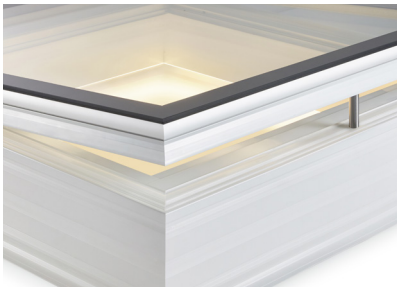
- the built-in LED lights with remote control(L):
  the LED lights are built-in in the groove underneath the PVC curb 20/00 EP, and are covered by an opal polycarbonate cover profile
- premounted electric inner sunblind with remote control (S): a premounted electric inner sunblind s keeps sunlight and sun warmth outside.
- or an electric and remote controlled blackout blind (V): an optional pre-mounted electric blackout blind on the inside of the curb that blocks the sunlight.
- or an electric an remote controlled insect screen (I): optional pre-mounted electric insect screen on the inside of the curb.

These options must be purchased when ordering the frame.
The built-in detection unit also has open contacts to connect fixed push-buttons, or to allow the functioning upon a domotic system. The Skylux iWindow openable glass skylight is suitable for flat roofs and for gradients between min. 4° and 25°. Installation under 5° is recommended to avoid the glass getting dirty and water stagnation.

Different types:


(S) electric inner sunblind


(O) openable with spindle actuator


(L) built-in LED lights

		Openable spindle actuator (O)	Built-in LED lights (L)	Pre-mounted electric inner sun blind (S)	Pre-mounted electric blackout blind (V)	Pre-mounted electric insect screen (I)
Openable model (O)	**O**	x	-	-	-	-
	OL	x	x	-	-	-
	OS	x	-	x	-	-
	OLS	x	x	x	-	-
	OV	x	-	-	x	-
	OLV	x	x	-	x	-
	OI	x	-	-	-	x
	OLI	x	x	-	-	x

Features

- openable model for fresh air ventilation
- complete rooflight product at any moment of the day
- maximum light spread equal to the daylight size
- built-in LED lights in option(L)
- exceptional insulation values (up to Ug = 0,50 W/m².K)
- good sound insulation
- air and water tight
- easy cleaning
- sleek and elegant inside and outside finish
- premounted set
- burglar proof
- easy in use thanks to the remote control
- optional electric inner sunblind or blackout blind or insect screen
- iWindow has a small thermal waste surface compared to the light spread surface
- large sizes possible: e.g. 1000x2000 mm
- options possible: fixed outer sunblind



Specific characteristics: Skylux iWindow2 & iWindow3 PVC frame

Mechanical characteristics	shock resistant PVC of frame quality type Benvic S white
Density according to ISO 1183	1450 kg/m³
Fire class according to EN 13501-1	E

Specific characteristics: Skylux iWindow2 & iWindow3 glass

	Skylux iWindow2™	Skylux iWindow3™
Mechanical characteristics	HR++ double glazing	HR+++ triple glazing
Type	layered (inner pane) tempered (outer pane)	layered (inner pane) tempered (outer and middle pane)
Thickness	± 39 mm	± 61 mm
Weight	± 35 à 44 kg/m²	± 55 à 60 kg/m²
Light transmission according to EN 410	66,9 %	68,3 %
Solar factor according to EN 410	0,42	0,49
Sound insulation according to EN 717-1	39 (-3, -7) dB	41 (-2, -5) dB
U_g value according to EN 673	1,0 W/m²K	0,5 W/m²K
Safety glazing NBN EN 356	min. type P2A (44.2) type P4A (44.4) for 1000 x 3000 mm	min. type P2A (44.2)

Specific characteristics: Skylux PVC 20/00 EP (+ 20/00 EP-S) curb

Mechanical characteristics	PVC of the type Benvic S white
Thermal characteristics	pvc with insulation
EN 10077-2:2012	U_{up}*-value 0,61 W/m².K (insulation EPS separate with λ = 0,035 W/m².K)
Sizes	Thickness: 62 mm (with bottom flange: 95 mm) Height: 20 cm (20/00 EP) / 40 cm (20/00 EP + 20/00 EP-S) Finished roof opening=daylight size + (4 cm) (Only with built-in LED lights)
Density	PVC: 1500 kg/m³ (EPS insulation: 28 kg/m³)

Specific characteristics: Skylux electric inner sunblind (S) optional

	inner sunblind (S)	Blackout blind (V)	Insect screen (I)
Functioning	24V DC		
Functioning temperature	0°C to +60°C		
Colour inside	White	Light grey	White
Colour outside	White	Light grey	White
Sunblind material	100% polyester	polyester with aluminium foil on the inside	100% polyethylene
Light transmission**	± 30% (Transmitting)	± 0,5% (Transmitting)**	± 90% (Transmitting)
Type	multi-layered (honeycomb) pleated fabric	multi-layered (honeycomb) pleated fabric	multi-layered (honeycomb) mesh

*** There's always some stray light on the sides of the blackout blind.*

Specific characteristics:
Skylux LED lighting (L) optional

Functioning	24V DC
Functioning temperature	-10°C to +60°C
Colour	warm white ± 3000K
LED distance	120 LEDS/m
Flux	≥ 2400 lumen/5m
Durability	≥ 40.000 h

At the bottom of the pvc curb 20/00 EP

Specific characteristics: assembled system
Skylux iWindow on PVC curb 20/00 EP (+ 20/00 EP-S)

	Skylux iWindow2™		**Skylux iWindow3™**	
	20/00EP	20/00EP+ 20/00EP-S	20/00EP	20/00EP+ 20/00EP-S
Urc*** -value (W/m².K)	0,96	0,87	0,70	0,68
Arc(*) surface (m²)	3,09	4,14	2,96	4,01

*** *Urc = U value of the set (glass, frame and curb) and is determined for daylight size 120x120 according to EN 1873:2014+A1:2016*
(*) *Arc = surface of the skylight with curb, determined for daylight size 120x120 according to EN 1873:2014+A1:2016*

Specific characteristics:
Skylux integrated spindle actuator (O)

Opening height	± 10 cm
Tension	24V DC
Current	3A
Consumption	85W (of 0,5W in standby)
Ambient temperature	-20°C to +70°C
Engine force opening	1000N
closing	300N
retention force	1500N
Durability	10.000 open/close cycles
Functioning cycle	10%, max. 2min./18min.

Available daylight sizes:

	Surface light (m^2)	Daylight size (cm) iWindow2	Weight (kg)	Daylight size (cm) iWindow3	Weight (kg)	Weight of the pallet (kg)
Square	0,36	60 x 60 ↑	± 39	60 x 60 ↑	± 42	± 26
	0,49	70 x 70 ↑	± 46	70 x 70 ↑	± 50	± 27
	0,64	80 x 80 ↑	± 54	80 x 80 ↑	± 59	± 28
	0,81	90 x 90 ↑	± 65	90 x 90 ↑	± 72	± 27
	1,00	100 x 100 ↑	± 72	100 x 100 ↑	± 92	± 30
	1,21	110 x 110 ↑	± 82	110 x 110 ↑	± 101	± 32
	1,44	120 x 120 ↑	± 101	120 x 120 ↑	± 123	± 34
	1,69	130 x 130 ↑	± 114	-	-	± 37
	1,96	140 x 140 ↑↑	± 135	-	-	±40
	2,25	150 x 150 ↑↑	± 149	-	-	±43
Rectangular	0,28	40 x 70 ↑	± 33	40 x 70 ↑	± 36	± 23
	0,54	60 x 90 ↑	± 49	60 x 90 ↑	± 54	± 30
	0,70	70 x 100 ↑	± 57	70 x 100 ↑	± 67	± 33
	1,04	80 x 130 ↑	± 74	80 x 130 ↑	± 96	±31
	1,44	80 x 180 ↑	± 97	80 x 180 ↑	± 126	± 33
	1,08	90 x 120 ↑	± 77	90 x 120 ↑	± 98	± 31
	1,30	100 x 130 ↑	± 88	100 x 130 ↑	± 113	± 33
	1,50	100 x 150 ↑	± 96	100 x 150 ↑	± 137	± 35
	2,00	100 x 200 ↑↑	± 138	-	-	± 37

↑ version with 1 spindle actuator, actuator is provided on the long side by default.
↑↑ version with 2 spindle actuators, actuator is provided on the long side by default.
These pre-mounted glass skylights are always packed on a pallet.

Remark:

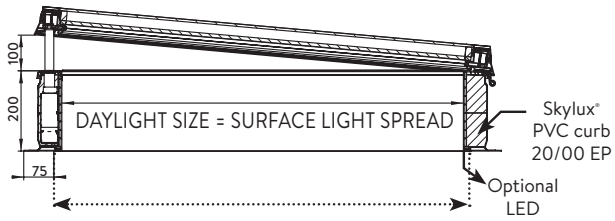
Depending on the size and weight of the glass skylight, we recommend to use appropriate lifting equipment for transport and installation.

Maintenance: regular cleaning of the flat glass on the outside is necessary to avoid dirt accumulation and water stagnation (flat glass always slightly bends (up to ± 5 mm at 20°C), even when placed at a minimum slope of 4°).

To avoid heat build-up under the transparent skylight (plastic, hybrid, glass) and therefore possible deformation or damage to the PVC curb, frame, skylight dome or electrical components, it is recommended that no closed surface (e.g. black closed attic hatch) is installed under the skylights. A reflective (e.g. white) surface and/or ventilation is recommended.

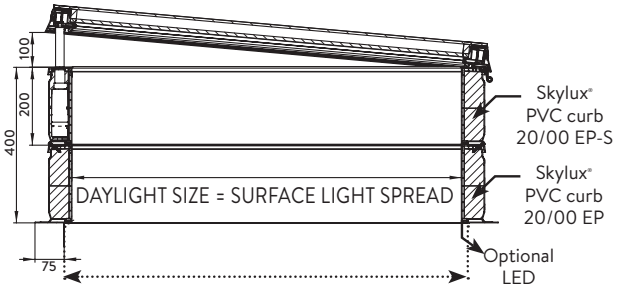
Drawings openable models (O):

with Skylux iWindow2™



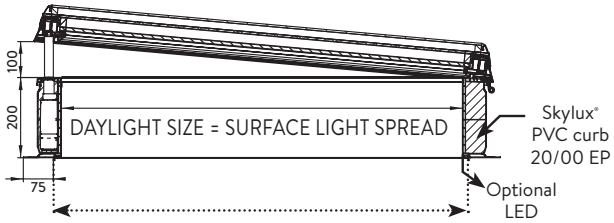
FINISHED ROOF OPENING = DAYLIGHT SIZE (+ 4CM)**

with Skylux iWindow2™



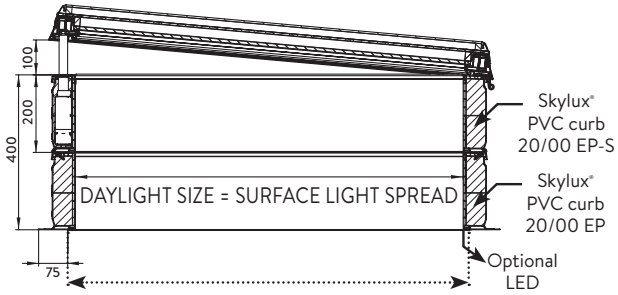
FINISHED ROOF OPENING = DAYLIGHT SIZE (+ 4CM)**

with Skylux iWindow3™



FINISHED ROOF OPENING = DAYLIGHT SIZE (+ 4CM)**

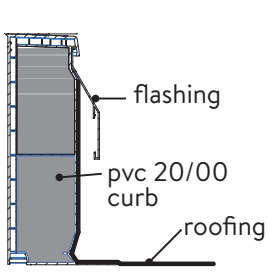
with Skylux iWindow3™



FINISHED ROOF OPENING = DAYLIGHT SIZE (+ 4CM)**

** Only with built-in LED lights

Drawing: finished 20/00 with flashing profile:



Attestations, certificates and documentation:

- Fall-through-safety certificate DIN 18008-6
  for Skylux iWindow2 or iWindow3, namely for all dimensions
  For sizes ≤ 120x120 cm and ≤ 100x200 cm, the residual load-bearing capacity after breakage remains valid according to the DIN 18008-6 certificate.
- According to performances of EN 1873:2014+A1:2016,
  but no CE, as there is no specific norm for glass skylight

BIM-ready files upon skylux.be

SKYLUX NV
SPINNERIJSTRAAT 100 - B-8530 STASEGEM
T +32 (0)56 20 00 00 - F +32 (0)56 21 95 99
INFO@SKYLUX.BE
WWW.SKYLUX.BE