

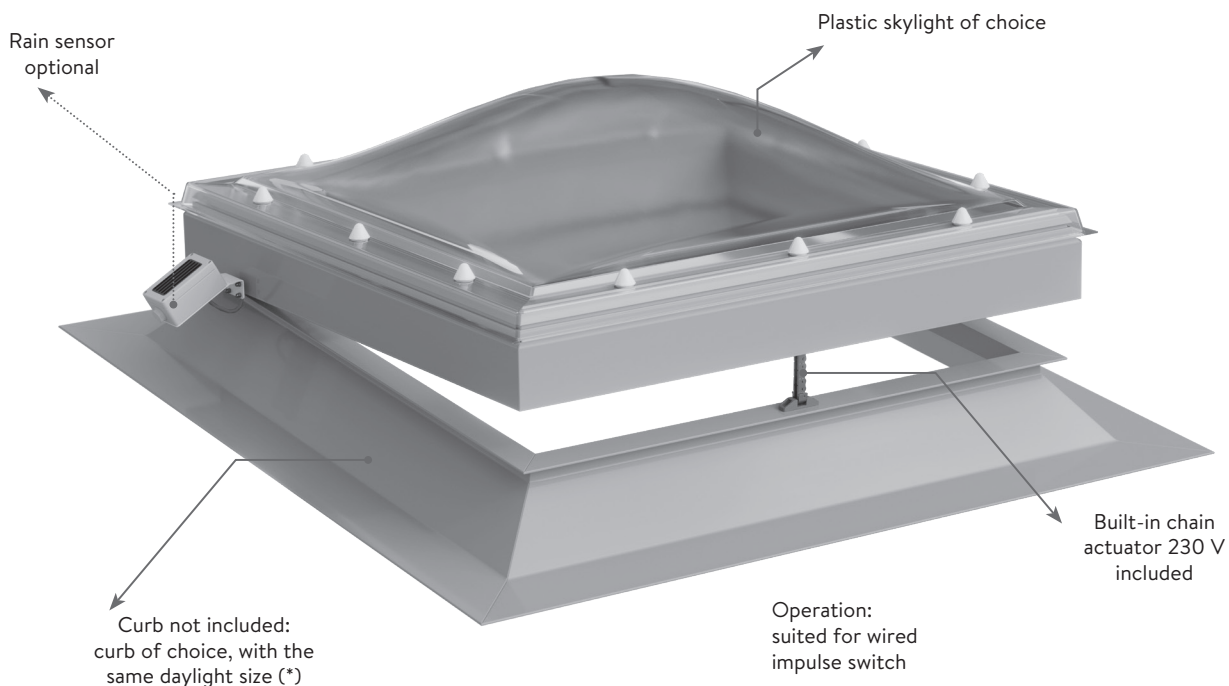


TECHNICAL FILE

Skylux® iDome™ Flex 2.0

Electrically opening hybrid skylight
for wired switch


Hello daylight!



General product description

The Skylux® iDome Flex 2.0 is the new Skylux® openable (O) hybrid skylight with a built-in 230 V chain actuator for ventilation purposes in flat roofs. It combines an optimal light incidence with excellent insulation values (low U values). The chain actuator(s) is (are) built into an insulating PVC frame, padded with EPS. Rain detection can be provided as an option, closing the daylight element automatically in case of precipitation. The openable skylight is operated by a wired impulse switch.

The Skylux® iDome Flex 2.0 can be installed on a curb (°) of choice (polyester, PVC or metal) that meets certain basic requirements.

The Skylux® iDome hybrid skylight is composed of an insulating PVC frame with super insulating safety glass HR++ (tempered double glazing) combined with a single- or double-walled Skylux® plastic skylight (please note: combination with multi-walled plastic skylights is not possible).

The iDome Flex 2.0 is suited for flat roofs with a slope between 4° and 25°. The hinge side must always face the lowest side of the roof slope. The hinges on rectangular models can be found on the long side. The wire necessary for the 230 V power supply and the switch comes out of the bottom side of the frame, on the hinge side.

One or two synchronised chain actuators are used, depending on the daylight sizes. The chain actuators are always built into the long side. They are also easily accessible from the inside of the skylight, allowing you to disconnect the skylight during a technical intervention in case of any malfunctions.

The Skylux iDome Flex 2.0 is not suited for installation above extremely damp environments (e.g. swimming pools) or environments affected by chemical influences (e.g. chlorine fumes).

(*) Detailed requirements are further documented in the characteristics of a basic curb.

Features

- Suited for fresh air ventilation, opens up to 25 cm
- Ideal for refurbishments and compatible with numerous curb types
- Simple and fast installation on a curb of choice (basic requirements: (°))
- Maximum light incidence equal to the daylight surface
- Self-cleaning effect thanks to the spherical plastic skylight
- Exceptional insulation values (up to $U_t = 0.79 \text{ W/m}^2\text{K}$)
- Easy connection to 230 V
- Simple operation, connection to wired impulse switch
- Large sizes are also available: 1500 x 1500 mm or 1000 x 2000 mm
- Different accessories are possible:
 - Rain sensor
 - Electric inner sunblind / blackout blind / insect screen
- Actuator can easily be disconnected from the inside of the skylight, which allows for an easy technical intervention
- Good sound insulation
- Excellent air- and watertightness
- Sleek and elegant interior and exterior design

Possibilities

A version with rain sensor is available on request.

Rain detection is strongly recommended to e.g. prevent any water damage caused by downpours or and/or snow.

Options

- Rain sensor
- Electric inner screen 230 V (with choice of: sunblind, blackout blind or insect screen): possible to install in the daylight size, at the top of the curb
- Electric inner screen on solar energy (with choice of: sunblind or blackout blind): possible to install at the top of the frame (cannot be installed in the daylight size of the curb)

Specific characteristics: Skylux iOra PVC frame

Mechanical characteristics	Impact-resistant PVC, frame quality, type Benvic S white
U_e^* value	0.49 $\text{W/m}^2\text{K}$ (separate EPS insulation with $\lambda = 0.035 \text{ W/mK}$)
Specific mass according to ISO 1183	PVC: 1500 kg/m^3 (EPS insulation: 28 kg/m^3)
Fire classification according to EN 13501-1	PVC: E (EPS insulation: B-s1,d0)
Dimensions	Thickness: 76 mm Height: 140 mm Daylight size frame = daylight size curb

* U_e : U value (edge) or insulation value of the frame in accordance with EN 1873:2014+A1:2016

Specific characteristics: Skylux glass

Mechanical characteristics	HR++ (double glazing)
Type	layered inner pane tempered outer pane
Weight	±30 kg/m ²
Thickness	±28 mm
Ug value according to EN 673	1,1 W/m ² .K
Light transmission according to EN 410	75%
Solar factor g (ZTA) according to EN 410	0,53
Sound insulation Rw according to EN 717-7	37 (-2,-6) dB
Safety glass NBN EN 356	Min. P2A (44.2)

Specific characteristics: assembled unit

Light transmission according to EN 410	Glass: 75 % of the LT of the chosen skylight (see technical file of the skylight)
Solar factor g (ZTA)	depends on the chosen skylight
Impact-resistance according to EN 1873:2014+A1:2016	SB 1200
Airtightness according to EN 1873:2014+A1:2016	Ap 1,3
Sound insulation Rw according to EN 717-1	38 - 40 dB
Rain noise according to ISO140-18 L _{IA}	38 dB

Specific characteristics: Skylux built-in chain actuator(s)

Opening height (stroke)	Max. 25 cm and can be controlled as required
Voltage	230 V AC ± 10% / 50 Hz
Main actuator (Master)	230 V AC
2 nd actuator (Slave)(*)	24 V DC
Synchronisation	2 ^{de} actuator follows the 1st actuator, by synchronous connection
Power	230 V AC ± 10% / 50 Hz
Main actuator (Master)	46 W
2 nd actuator (Slave)(*)	22 W
Operating temperature	-10°C to +60°C
Actuator power during opening	600 N
during closing	600 N
Chain material	Stainless steel
Nominal speed	8 mm/s
“Sound pressure level A”	≤ 70 dB (A)
Guarantee	2 years
Chain bracket colour	RAL 9006

(*) for version with two built-in actuators

Specific characteristics: Skylux mounted rain sensor - optional

Operation	Capacitive sensors
Voltage	12 V DC
Dimensions	80 x ± 160 x 55 mm
Colour	Light grey
Bracket colour	White
	Pre-mounted on the openable PVC frame

Specific characteristics: assembled unit Skylux iDome Flex 2.0 with curb

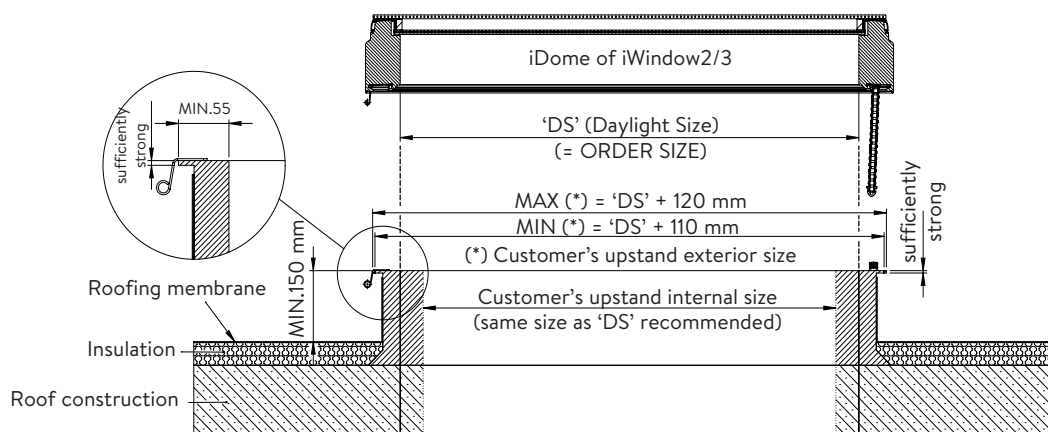
Urc value Skylux iDome Flex 2.0 with skylight and and curb (W/m²K)

Skylight type/curb type	single-walled	double-walled
PVC 20/00 EP	0.79	0.72
PO 30/20	0.83	0.78

*** Urc = U value of the whole unit (=glass, frame and curb) defined for daylight size 120 x 120 cm, according to EN 1873:2014+A1:2016

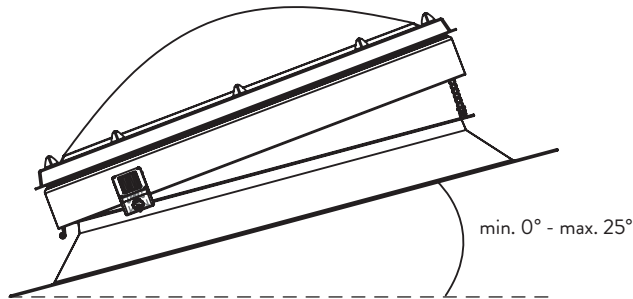
Suited for installation on curbs with the following characteristics:

- The upper surface is at least 15 cm above the roofing
- Maximum overall size of curb = daylight size Flex 2.0 + 12 cm
- Minimum overall size of curb = daylight size Flex 2.0 + 11 cm
- Width top flange of curb: minimum 55 mm
- Daylight size curb and daylight size Flex 2.0 are preferably equal
- The curb must be strong enough to bear the full weight of the Flex 2.0
- Only suitable for polyester, metal or PVC curbs. Not allowed on wooden curbs.



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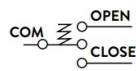
- Curb slope or roof slope:
Skylux iDome Flex 2.0: 0 - 25°





- Hinges of the Flex 2.0 are always located on the long side of the skylight
- The hinge side must always face the lowest side of the roof slope


Electric wiring and operation

- Wires come out of the bottom side of the frame, on the hinge side
- Operation: connection to 230 V AC (L / N / PE) must be provided
- Control: connection to impulse switch must be provided (which automatically returns to the off-position when not pressed)



Available daylight sizes and versions

	Light incidence surface (m ²)	Daylight size (cm) iDome Flex 2.0	Weight (kg)	Actuator(s)
Square 	0,49	70 x 70	33	↑
	0,56	75 x 75	36	↑↑
	0,64	80 x 80	39	↑↑
	0,72	85 x 85	42	↑↑
	0,81	90 x 90	46	↑↑
	1,00	100 x 100	53	↑↑
	1,10	105 x 105	57	↑↑
	1,21	110 x 110	61	↑↑
	1,44	120 x 120	70	↑↑
	1,96	140 x 140	95	↑↑↑
2,25	150 x 150	105	↑↑↑	
Rectangular 	0,28	40 x 70	24	↑
	0,40	40 x 100	30	↑
	0,52	40 x 130	36	↑
	0,56	40 x 140	38	↑
	0,64	40 x 160	42	↑
	0,76	40 x 190	48	↑
	0,88	40 x 220	54	↑↑↑
	1,12	40 x 280	67	↑↑↑
	0,47	45 x 105	33	↑
	0,35	50 x 70	27	↑
	0,40	50 x 80	29	↑

	Light incidence surface (m ²)	Daylight size (cm) iWindow2	Weight (kg)	Actuator(s)
Rectangular 	0,50	50 x 100	34	↑
	0,55	50 x 110	37	↑
	0,70	50 x 140	43	↑
	0,85	50 x 170	50	↑
	1,00	50 x 200	57	↑
	1,15	50 x 230	64	↑↑
	0,48	60 x 80	33	↑
	0,54	60 x 90	35	↑
	0,72	60 x 120	43	↑
	0,78	60 x 130	46	↑
	0,90	60 x 150	51	↑
	1,08	60 x 180	59	↑
	1,20	60 x 200	64	↑
	0,70	70 x 100	42	↑
	0,91	70 x 130	51	↑
	1,05	70 x 150	57	↑
	1,12	70 x 160	59	↑
	1,40	70 x 200	71	↑↑
	1,54	70 x 220	77	↑↑
	0,79	75 x 105	45	↑
	0,94	75 x 125	52	↑
	1,24	75 x 165	64	↑
	1,31	75 x 175	67	↑
	1,69	75 x 225	88	↑↑
	0,88	80 x 110	49	↑
	1,04	80 x 130	55	↑
	1,12	80 x 140	59	↑
	1,28	80 x 160	65	↑
	1,36	80 x 170	68	↑
	1,44	80 x 180	72	↑↑
	1,60	80 x 200	84	↑↑
	1,76	80 x 220	90	↑↑
	1,84	80 x 230	93	↑↑
	2,00	80 x 250	107	↑↑
	2,24	80 x 280	118	↑↑
	1,08	90 x 120	57	↑
	1,35	90 x 150	67	↑
	1,62	90 x 180	83	↑↑
	1,89	90 x 210	94	↑↑
	1,30	100 x 130	65	↑
	1,50	100 x 150	73	↑
	1,60	100 x 160	82	↑↑
	1,80	100 x 180	90	↑↑
	2,00	100 x 200	97	↑↑
	2,20	100 x 220	113	↑↑
	2,30	100 x 230	117	↑↑
	2,50	100 x 250	126	↑↑
1,73	105 x 165	87	↑↑	
2,36	105 x 225	111	↑↑	
1,54	110 x 140	74	↑↑	
1,87	110 x 170	98	↑↑	
2,53	110 x 230	126	↑↑	
1,68	120 x 140	84	↑↑	
1,80	120 x 150	89	↑↑	
2,16	120 x 180	102	↑↑	
2,52	120 x 210	138	↑↑	
2,08	130 x 160	99	↑↑	

↑ with 1 built-in actuator

↑↑ with 2 built-in actuators

hinges always on the long side

weight (± 5%) = weight of the product, without packaging

Remarks

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

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.

Rain detection is strongly recommended to e.g. prevent any water damage caused by downpours or and/or snow.

Attestations, certificates and documentation

- Fall-through safety certificate DIN 18008-6 for Skylux iDome with tempered glass, in combination with all Skylux PVC curbs or all polyester curbs. Additionally, residual load-bearing capacity after breakage is also valid for sizes $\leq 120 \times 120$ cm and $\leq 100 \times 200$ cm, according to the DIN 18008-6 certificate (tests were performed on the largest dimensions, intermediate dimensions are determined by interpolation).
- GS BAU 18 certificate for Skylux iDome with polycarbonate or Heatstop skylight in combination with all Skylux PVC curbs or all polyester curbs.
- CE according to EN 1873:2014+A1:2016
- DoP on www.skylux.eu
- Certificate - DGUV Test



EN 1873:2014+A1:2016



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