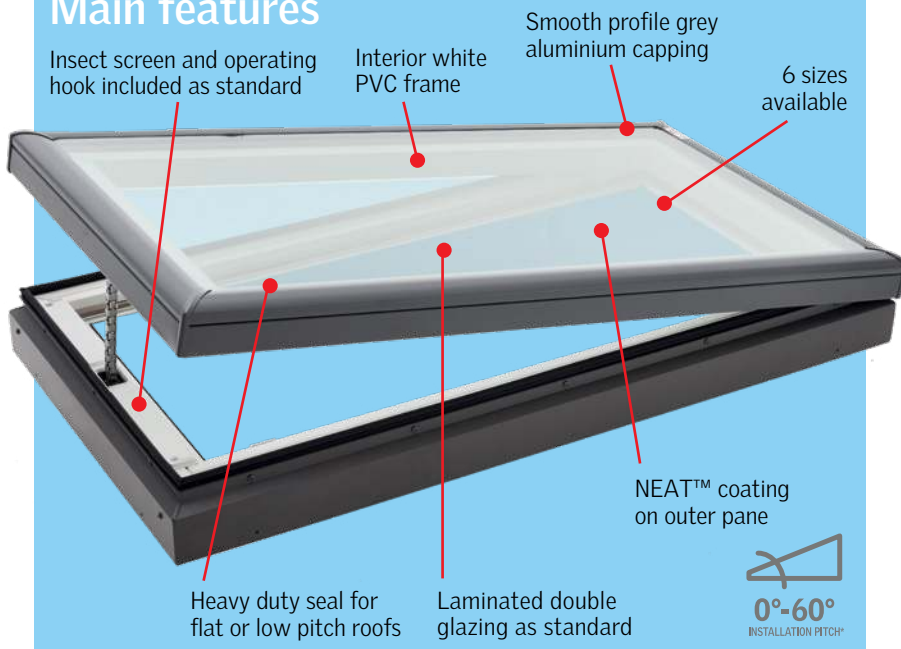


VCM Manual Skylight Flat Roof

Main features



Construction

White PVC frame and sash components with extruded gaskets. White framed insect screen included as standard.

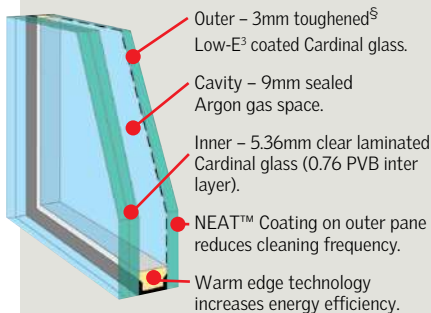
VCM needs a custom flashing made by roofer, see preparation guide overleaf.

Operation

VCM Skylights are manually operated. The VCM has a hook included which requires a ZCT 300 rod control to wind the hook and open the sash, or for applications within reach, the ZZZ 212 winder handle can be used.**



High Performance Double Glazing



[§] VCM 4646 outer pane is 3.9mm.

Benefits:

- Radiant heat block: Complete window Glass only **approx 75%**
- UV Harmful rays block **approx 70%**
- WERS rating **approx 99%**
- Double layer of Low-E³ coating. **5 stars**
- 10 year warranty on insulated glass seal.
- Reduced cleaning frequency.

Australian Standard AS1288

Laminated glass (standard with VCM) must be used for skylights installed 3m or more above floor level.

NEAT™ Photocatalytic Coating

- Silicone Dioxide/Titanium Dioxide coating reacts with the sun's UV rays to decompose surface organic dirt before rinsing away with the next shower of rain, thereby reducing cleaning frequency.
- The coating also makes the glass surface smoother, so water disperses evenly, sheets off, and evaporates quickly; thereby minimising water spotting on the pane.



* VELUX recommends VCM is installed with a slight pitch (e.g. 3°-5°) to help reduce condensation build-up and water ponding on the glass.
** Winder handle and extension rods to be purchased separately. Details overleaf.

10 YEAR WARRANTY
on skylights and glazing

3 YEAR WARRANTY
on blinds and accessories

VCM technical performance

Code Mark is a voluntary certification scheme owned by the Commonwealth of Australia that provides legally binding evidence of compliance to the National Construction Code of Australia. One certificate replaces dozens of technical papers.



Australian Standards

VELUX Skylights are tested and approved to the appropriate Australian Standards.

AS4285 SKYLIGHTS± Cyclonic & Non-Cyclonic

Cyclonic Rating -2.16kPa

AS1288 OVERHEAD GLAZING Laminated inner pane

AS3959 BUSHFIRE Attack Level 40^

NCC BOUNDARY SEPARATION†

Class 1 & Class 10 buildings:
Within 900mm of a boundary wall
Class 2 to Class 9 buildings:
3 metres from a boundary wall^^

VELUX Skylights are deemed non-combustible by CSIRO and thereby comply with NCC boundary separation requirements.

± Tests performed on skylight installed with #8 roofing screws (not screws provided).

† CSIRO assessment report available on request. VELUX recommends consultation with relevant authority before work commences. Skylight assessed in closed position.

^ Roof pitch 0°-60° Skylight only. Custom-made flashing required. Skylight tested in closed position, metal flywire mesh protection may be required for opening apertures (consult local council).

^^ Skylight cannot be closer than 3m unless the boundary is adjoining a road or public place. Consult NCC for further details.

Hailstone Test

VELUX Simulated Tests ††ASTM E822-2009.

†† ASTM E822-2009 standard practice for determining resistance of Solar Collector Covers to Hail impact with propelled ice balls.

Energy rating

VCM Openable Skylights have been energy rated in accordance with the Skylight Energy Rating Scheme (WERS).

★★★★★ **Maximum 5 stars Summer Ratings**

4.5 out of 5 stars for Winter Rating.

4.5 out of 5 stars for Cool Daylight in Summer.

Technical Values

U-value (W/m²K)

Complete skylight	2.9‡
Glass only	1.93

Solar Heat Gain Co-efficient

Complete skylight	0.24
Glass only	0.28

Visible Light Transmittance

Complete skylight	0.55
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Luminous Efficacy (Ke = VT/SHGC)

Complete skylight	2.29
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Acoustic performance

Complete skylight	31dB#
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Figures generated by AFRC accredited simulators. Figures based on complete skylight: nominal size 1140mm (W) x 1180mm (H).

‡ See required installation method overleaf.

Based on Rw value tested to AS1276.1.

VCM Manual Skylight Flat Roof

Solar Powered Honeycomb blinds



- Adds a decorative effect.
- Colour: White on both sides.
- Materials: Double layered pleats (polyester) form a 'honeycomb' structure. Inner faces of honeycomb structure have aluminium coating. White powder-coated aluminium side channels and top cover.
- Provides near total light reduction.
- Reduce heat by approx 60%.[^]
- Easy to install.
- Operated by wireless wall-mounted keypad (provided).
- Built-in solar panel charges concealed battery pack.

Control options- sold separately

Out of reach situations

ZCT 300 extension rod
Telescopic rod control adjustable from 145-285cm
Attaches to operating hook for simple winding action to open and close.

ZOZ 032 short control rod
(60cm long).

Within reach situations

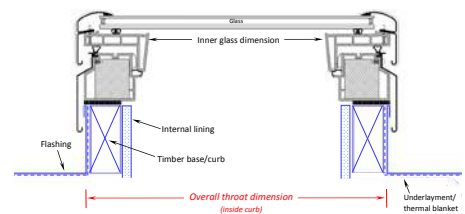
ZZZ 212 winder handle

Replaces operating hook for simple winding action to open and close.

Important considerations

- VELUX VCM Skylights can be used for flat and low sloping roofs. The low profile external covering and glazing seal prevents water infiltration even at 0°. To help reduce water 'ponding' on the glass a slight pitch (e.g. 3°-5°) is recommended.
- VELUX VCM does not come with a flashing kit but can be used with a variety of custom-made curb flashings. Contact VELUX or a local flashing manufacturer for more information.

Preparation guide for custom-made flashing



Note: If timber hob is greater than 38mm the Gyprock will encroach past the edge of the internal frame.

†Skylight must be installed with timber hob and Gyprock, as shown (typical installation), to achieve 2.9 U-value rating.

Opening Restrictors

NCC Vol 1&2 regulations (Prevention of Falls from Windows-Balustrades & Barriers): contact VELUX for information relating to restrictor devices for within-reach opening skylights.

VCM – frame and glazing dimensions

Product/size code ▶	2222	2234	2246	3030	3046	4646
Throat dimensions wxh (mm)	692x692	665x970	665x1275	870x870	870x1275	1275x1275
Internal glass size wxh (mm)	495x495	495x799	495x1104	698x698	698x1104	1104x1104
Daylight area (m ²)	0.24	0.39	0.55	0.49	0.77	1.22
Ventilation area (m ²)	0.46	0.66	0.87	0.77	1.13	1.65
Weight in kg *	19.9	20.9	32.3	29.2	33.6	55.1

Skylights can only be installed as per orientation depicted above.
* Weight does not include flashing.
^Based on VELUX internal testing with 3076 model Roof Window.