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# VCS Solar Skylight Flat Roof



## Construction

White PVC frame and sash components with extruded gaskets. White framed flyscreen as standard

VCS needs a custom-made flashing, preparation guide overleaf.

## Wireless control

The VCS Skylight comes complete with a pre-paired radio frequency controller for skylight operation.

Externally mounted rain sensor automatically closes the skylight once rain is detected\*\*.

### **High Performance Double Glazing**



Low-E<sup>3</sup> coated Cardinal glass.

Inner – 5.36mm clear laminated Cardinal glass (0.76 PVB inter laver)

NEAT<sup>™</sup> Coating on outer pane reduces cleaning frequency.

Warm edge technology increases energy efficiency.

§ VCS 4646 outer pane is 3.9mm.

#### **NEAT<sup>™</sup>** 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.

• Radiant heat block: Complete window approx 75%

Glass only

Australian Standard AS1288

Laminated glass (standard with VCS) must be used

for skylights installed 3m or more above floor level.

approx 70%

approx 99%

5 star

Indoor climate control (sold separately)

Smart sensors continuously monitor

temperature, humidity and CO<sub>2</sub> levels

· Sensor-based ventilation:

and open or close your

skylights accordingly.

Use the app to operate

your skylights and

blinds using your

smartphone.

Benefits:

WERS rating

• UV Harmful rays block

Double layer of Low-E<sup>3</sup> coating.

Reduced cleaning frequency.

10 year warranty on insulated glass seal.

• Stay in control:

\* VELUX recommends VCS is installed with a slight pitch (e.g. 3°-5°) to help prevent condensation build-up and water ponding on the glass \*\*Activation causes the skylight to close faster than normal operation.

### 10 YEAR WARRANTY on skylights and glazing



### VCS technical performance

CodeMark is a voluntary certification scheme owned by the Commonwealth of Australia that provides legally binding evidence of compliance to the Building 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

AS1288 OVERHEAD GLAZING Laminated inner pane

**AS3959 BUSHFIRE** Attack Level 40^

AS1530.8.1: BCA BOUNDARY SEPARATION<sup>†</sup> <u>Class 1 & Class 10 buildings:</u> Within 900mm of a boundary wall <u>Class 2 to Class 9 buildings:</u> 3 metres from a boundary wall^^

VELUX Skylights are deemed non-combustible by CSIRO and thereby comply with BCA Fire Separation requirements.

- Tests performed on skylight installed with #8 roofing screws ±
- Tests performed on skylight installed with #8 roofing screws (not screws provided). CSIRO assessment report available on request. VELUX recommends: Skylight assessed in closed position. Roof pitch 0°- 60°. Skylight only. Custom-made flashing required. Skylight assessed in closed position, additional mesh protection may be required for opening apertures (consult local council). BAL assessed based on VSS results.
- Skylight cannot be closer than 3m unless the boundary is adjoining a road or public place. Consult BCA for further details.

VELUX Simulated Tests <sup>++</sup>ASTM E822-2009.

+ ASTM E822-2009 standard practice for determining resistance of Solar Collector Covers to Hail impact with propelled ice balls. Hailstone test not performed on solar panel.

### Enerav ratina

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

#### $\star \star \star \star \star \star \star$ Maximum 5 star. Summer Ratings Maximum 5 stars 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/m <sup>2</sup> K)     |                          |  |  |  |  |
|----------------------------------|--------------------------|--|--|--|--|
| Complete skylight<br>Glass only  | 2.9 <sup>‡</sup><br>1.93 |  |  |  |  |
| Solar Heat Gain Co-efficient     |                          |  |  |  |  |
| Complete skylight<br>Glass only  | 0.24<br>0.28             |  |  |  |  |
| Visible Light Transmittance      |                          |  |  |  |  |
| Complete skylight                | 0.55                     |  |  |  |  |
| Luminous Efficacy (Ke = VT/SHGC) |                          |  |  |  |  |
| Complete skylight                | 2.29                     |  |  |  |  |
| Acoustic performance             |                          |  |  |  |  |
| Complete skylight                | 31dB#                    |  |  |  |  |

Figures generated by AFRC accredited simulators. Figures based on complete skylight: nominal size 1275mm (W) x 1275mm (H) ‡ See required installation method overleaf. # Based on RW value tested to A1276.1.

# VCS Solar Skylight Flat Roof

# Solar powered blinds

The thermal performance of VCS Skylights can be enhanced with the inclusion of a blind. Tailor-made to fit perfectly to each size of skylight, they are easy to install and are supplied with aluminium side channels allowing blinds to be positioned at any point on the skylight.

No additional electrical control system required when adding blinds. (Blinds supplied with remote control).

## Honeycomb blinds



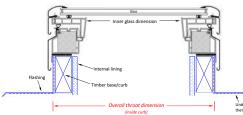
- Adds a decorative effect. •
- Colour: White on both sides.
- Materials: Double layered pleats (polyester) form a 'honeycomb' structure. Inner faces of honeycomb structure have aluminium coating.
- Near-total light reduction.
- Reduce heat by approx 60%.^
- Easy to fit using VELUX Pick&Click!" system.

Blinds sold separately.

- VELUX VCS 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 prevent water 'ponding' on the glass a slight pitch (e.g. 3°-5°) is recommended.
- VELUX VCS 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.
- When installing VCS in an above/below combination, a minimum 250mm frame separation is required to allow clearance of the solar/rain sensor panel.

BCA 2013 Vol 1 & 2 regulations (Prevention of Falls from Windows -Balustrades & Barriers): contact VELUX for information relating to restrictor devices for within-reach opening skylights.

# Preparation guide for custom-made flashing



Throat on custom-made flashing must not exceed 38mm - otherwise Gyprock, when installed, will encroach upon glass area.

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

## VCS – frame and glazing dimensions

| Product/size code ►                | 2222    | 2234    | 2246     | 3030    | 3046     | 4646      |
|------------------------------------|---------|---------|----------|---------|----------|-----------|
| Throat dimensions wxh (mm)         | 665x665 | 665x970 | 665x1275 | 870x870 | 870x1275 | 1275x1275 |
| Internal glass size wxh (mm)       | 495x495 | 495x799 | 495x1104 | 698x698 | 698x1104 | 1104x1104 |
| Daylight area (m²)                 | 0.24    | 0.39    | 0.55     | 0.49    | 0.77     | 1.22      |
| Ventilation area (m <sup>2</sup> ) | 0.46    | 0.66    | 0.87     | 0.77    | 1.13     | 1.65      |
| Weight in kg*                      | 20.6    | 29.9    | 34.6     | 31.3    | 43.1     | 57.2      |

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