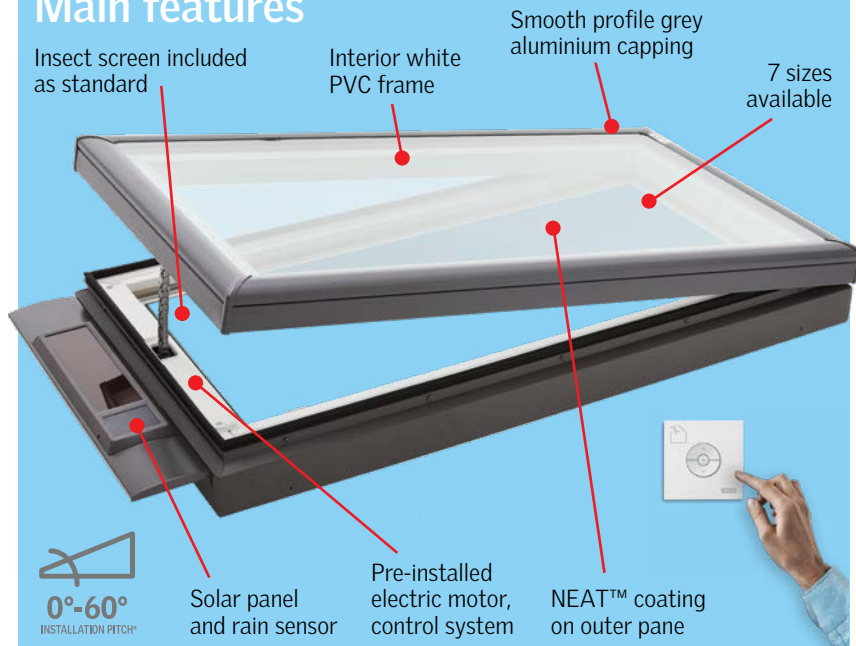


VCS Solar Skylight Flat roof

Main features



Construction

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

Aluminium outer frame finished in a smooth grey colour, similar to 'COLORSTEEL® Grey Friars.'

Wireless control

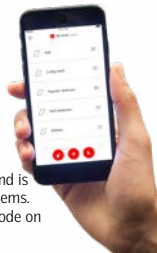
The VCS Skylight comes complete with a pre-programmed wireless wall mounted keypad for skylight operation. Externally mounted rain sensor automatically closes the skylight once rain is detected**.

VELUX ACTIVE

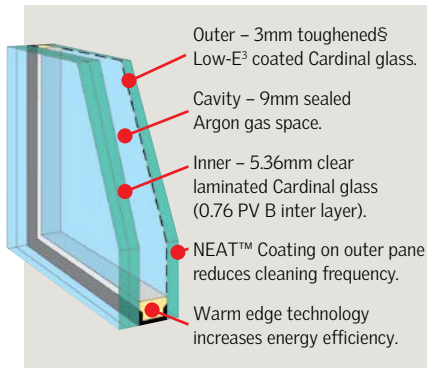
Indoor climate control (sold separately)

- **Sensor-based ventilation:** Smart sensors continuously monitor temperature, humidity and CO₂ levels and open or close your skylights accordingly.
- **Stay in control:** Use the app to operate your skylights and blinds using your smartphone.

VELUX Active operates on 2.4GHz and is compatible with modern 'smart' modems. (select the 2.4GHz channel in dual mode on your modem).



High Performance Double Glazing



§ VCS 4646 outer pane is 3.9mm

Benefits:

- Radiant heat block: Complete window **approx 75%**
Glass only **approx 70%**
- UV Harmful rays block **approx 99%**
- WERS rating **5 stars**
- Low-E³ coated.
- Reduced cleaning frequency.

New Zealand Standard 4223.4

Laminated glass (standard) must be used for skylights installed 5m 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.



* The VCS is watertight for pitches between 0-60°, though raising the installation pitch to 10° may be preferred for best aesthetic appearance. Below this pitch you are likely to experience water ponding on the glass.
**Activation causes the skylight to close faster than normal operation.

VCS technical performance

CodeMark® is a voluntary scheme owned by the Ministry of Business, Innovation & Employment that provides an easily understood and robust way to show a building product, design or method meets the requirements of the New Zealand Building Code. CodeMark is unchallengeable and has legal status equivalent to that of an Acceptable Solution or Verification Method.

CodeMark
CMNZ10008



BRANZ Appraised
Appraisal No. 968

WORLD-CLASS
QUALITY

New Zealand Standards

VELUX Skylights are tested and appraised to the appropriate New Zealand Standards.

NZS4223 NZS3604 NZS1170

AS4285 SKYLIGHTS

(Exceeds Wind Pressure requirement for 'Extra High wind zones - 55m/s, 1.8kpa).

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. Hailstone test not performed on solar panel.

H1 Compliance

Listed thermal values (see reverse side) have been verified by BRANZ and can be used for all climate zones to show compliance with NZBC H1/AS1 using Alternative Solution VELUX Schedule Method (CodeMark), or the Calculation Method.

Energy rating

VCS 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

R-value

Refer to reverse side

Solar Heat Gain Co-efficient

Complete skylight 0.24

Visible Light Transmittance

Complete skylight 0.55

Luminous Efficacy (Ke = VT/SHGC)

Complete skylight 2.29

Acoustic performance

Complete skylight 31dB#

Based on STC value tested to AS1276.1.



LOAD TESTED
(NZBC Clause B1)



DURABILITY
(NZBC Clause B2)

Exceeds requirements for Exposure Zone D (NZ3604).



WEATHERTIGHTNESS
(NZBC Clause E2)



SAFETY GLAZING
(NZBC Clause F2)



ENERGY EFFICIENCY
(NZBC Clause H1)



VENTILATION
(NZBC Clause G4)



NATURAL LIGHT
(NZBC Clause G7)

NB: CodeMark certification and BRANZ appraisal scope does not cover installations over 60°.

VCS Solar Skylight Flat roof

Solar-Powered Honeycomb Blind (FSCC)

The thermal performance of VCS Skylights can be enhanced with the inclusion of a blind. Different levels of light and heat control are available by using Honeycomb blinds. Tailor-made to fit perfectly to each size of skylight, they are easy to install and are supplied with white powder-coated 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 wireless wall mounted keypad).



- Provides near total light reduction.
- Adds a decorative effect.
- Colour: White material and rails.
- Materials: Double layered pleats (polyester) form a 'honeycomb' structure. Inner structure of honeycomb has aluminium coating. White powder-coated aluminium side channels and top cover.
- Reduce heat by approx 60%.[^]
- Unique installation system allows easy installation.

Blinds sold separately.

Important considerations

- VELUX VCS Skylights can be used for low sloping roofs. The low profile external covering and glazing seal prevents water infiltration even at 0°. Raising the installation pitch to 10° may be preferred for best aesthetic appearance. Below this pitch you are likely to experience water ponding on the glass.
- VCS is a curb mounted skylight and requires a custom made flashing to be made by roofer. See below for curb dimensions. (No VELUX proprietary flashing available).

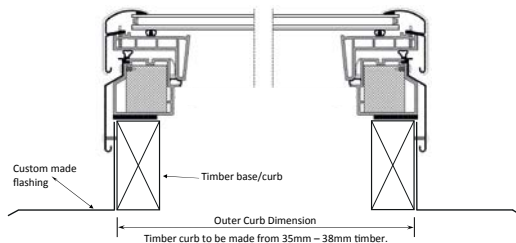
Opening Restrictions

Building regulations may require the use of a restrictor device: contact VELUX for information relating to restrictor devices for within-reach opening skylights.

Consideration

When installing VCS in an above/below combination, solar panel may need to be moved using relocation kit (provided). Contact VELUX for more information.

Preparation guide for custom-made flashing



VCS – Technical Data

Product/size code ▶	2222	2234	2246	3030	3046	4622	4646
External frame dimensions wxh (mm)	692x692	692x997	692x1302	895x895	895x1302	1302x692	1302x1302
Outer curb dimensions wxh (mm)	645x645	645x950	645x1255	850x850	850x1255	1255x645	1255x1255
Visible glass dimensions wxh (mm)	572x572	572x876	572x1181	775x775	775x1181	1181x572	1181x1181
Daylight area (m ²)	0.24	0.39	0.55	0.49	0.77	0.55	1.22
Ventilation area (m ²)	0.46	0.66	0.87	0.77	1.13	0.87	1.65
R-Value (BRANZ Verified Horizontal R-Value)*	0.374	0.393	0.403	0.403	0.422	0.403	0.443
Weight in kg [†]	22.0	28.3	34.6	31.3	41.3	34.1	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.

* Listed thermal values have been verified by BRANZ and can be used for all climate zones to show compliance with NZBC H1/AS1 using Alternative Solution VELUX Schedule Method (CodeMark), or the Calculation Method.