

Glass Link

TB288 Brett Martin Glass Link Datasheet

Product Description

Brett Martin Glass Link modules are a system of premium quality factory assembled glass rooflight units that simply lap together to form continuous rooflights of unlimited length. Modules are constructed from structurally glazed double glazed units in a powder coated, fully thermally broken aluminium frame. The product is designed for simple and rapid installation on roofs of all modern building types to provide natural light, and comfort ventilation where specified. Brett Martin Glass Link rooflights are manufactured using systems fully accredited to ISO 9001 and ISO 14001.

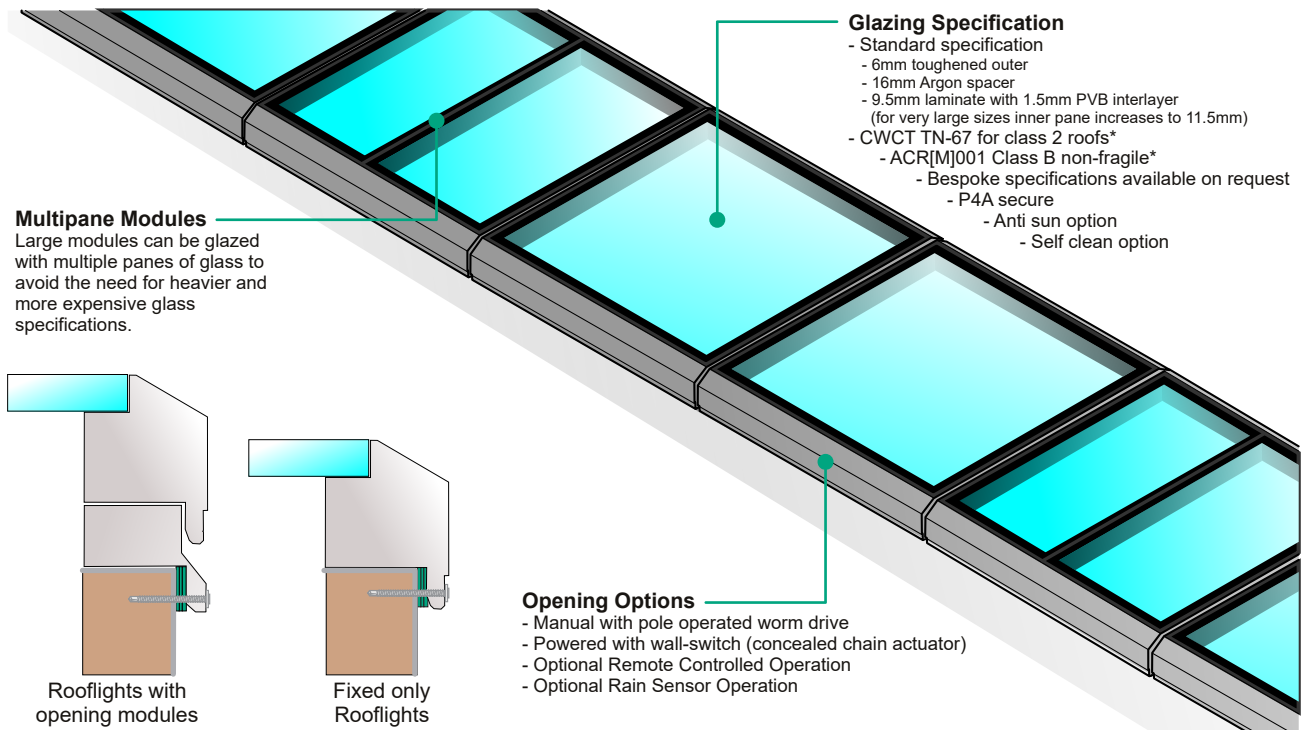
Sleek and contemporary design, ideal for both residential and commercial applications. All modules, including opening ones, are flush, providing a seamless aesthetic. Concealed internal fixings and opening mechanisms ensure an elegant finish and mean fixed and opening modules appear almost identical.

Design Features

- Factory assembled modules simply lap together for a swift installation of unlimited length.
- All modules are flush including opening ones.
- Components of powered opening rooflights are completely concealed for an unobstructed light well.
- Dual colour powder coated as standard, fully thermally broken aluminium framework. Option to powder coat in any single RAL colour.
- Spans of up to 3800mm are possible with individual modules of up to 3800x1750mm allowing for large uninterrupted daylight areas.
- Suitable for installation at pitches of 2-35° across span and 15° along length (Some larger sizes will require a minimum installation pitch of up to 5°).
- U_r value typically between 1.9 and 2.1W/m²K. (U_r value varies with module size and specification).
- Tested to be non-fragile to CWCT TN-67 (for class 2 roofs) and Class B non-fragile to ACR[M]001*.
- Fixed Brett Martin Glass Link rooflights achieve Secured by Design accreditation.



Product Options Summary



*When new and fully installed to Brett Martin Daylight Systems installation guides



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Composition

The double glazed glass panels are made up of 6mm toughened outer, 90% argon filled cavity, with a 9.5mm laminated inner (inc. 1.5mm PVB interlayer). For larger pane sizes the inner pane thickness is increased to 11.5mm.

The frame is manufactured from extruded aluminium, powder coated in RAL 7016 externally and RAL 9010 internally as standard (other colours are available). It is fully thermally broken to provide excellent thermal performance. Other integral components comprise of ABS and PVC. The Glass, Aluminium, PVC and ABS can all be recycled at the end of useful product life.

Durability

Glass Link Rooflights are expected to remain fit for purpose in normal industrial conditions for a period of 20 years (with a warranty available providing a 10 year guarantee) i.e. they will not become perforated, lose significant structural integrity, or distort to the extent of losing weather-tightness. The available warranty also guarantees:

- Electrical actuators (where present), for a period of 1 year (actuators have a design life of at least 10,000 cycles).
- Insulated glass used in the construction of the rooflight for 5 years.

Safety Requirements and CDM

Glass Link modules achieve CWCT TN-67 non-fragility for class-2 roofs and ACR[M]001 class B non-fragility when new and fully installed in accordance with Brett Martin Daylight Systems' installation guides. Inner glass pane is laminated to protect people inside buildings in accordance with industry guidelines in NARM NTD14. Foot traffic on rooflights should always be avoided; impacts such as foot traffic or a falling person may cause damage which could necessitate rooflight replacement. All glass panels are BS EN12150, BS 14449 and BS 1279 compliant.

Security

The product is fitted to a structural, insulated builders upstand with self-drilling, anti-tamper security fixings. All fixed Glass Link rooflights achieve Secured by Design accreditation.

Fire Ratings

Building Regulations Approved Document B: Fire Safety (volume 1 for dwellings and volume 2 for buildings other than dwellings) sets out the fire safety rules for buildings, which can be met by achieving specific European Class reaction to fire ratings to the relevant standard EN 13501-1.

Section B2 (volumes 1 and 2) concerns internal fire spread and defines the classification of linings dependent on building type and size:

	Volume 1 - dwellings (see paragraph 4.1 & table 4.1)	Volume 2 - non dwellings (see paragraph 6.1 & table 6.1)
Classification	Location	Location
D-s3,d2	Small rooms max floor area 4m ² Garages (as part of dwelling) max floor area 40m ²	Small room in non-residential accommodation max 30m ²
C-s3,d2	Other rooms (including garages) Circulation spaces within a dwelling	Other rooms (including garages)
B-s3,d2	Other circulation spaces (including the common areas of blocks of flats)	Other circulation spaces

Section B4 (volumes 1 and 2) concerns external fire spread and defines limitations on the roof coverings. Coverings with a designation of B_{ROOF}(t4) can be used at any distance from a relevant boundary. It also states that when used in rooflights, unwired glass a minimum of 4mm thick can be regarded as having a B_{ROOF}(t4) classification (see: volume 1 – paragraph 12.8; volume 2 – paragraph 14.8)

Glass is designated Class A to EN13501 part 1, as it is included in the list of CWFT (classified without further test) materials published in the Official Journal of the EU (see European Commission Decision 96/603/EC).

Brett Martin Flat Glass rooflights can therefore be regarded as Class A (CWFT) to EN13501-1. All Brett Martin Flat Glass units are glazed with a 6mm toughened outer pane and therefore can also be regarded as having the B_{ROOF}(t4) classification defined in section B4

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Size Restrictions

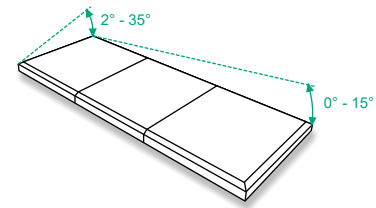
Please note that restrictions apply due to size, wind loadings and weight. For opening modules, size is normally restricted to a maximum nominal area of 3.6m² for powered opening or 1.44m² for manual opening. Figures stated are a guide. Please contact BMDS for specific details and advice.

Product Overall Height & Weight			
Rooflight Variant	Nominal Size	Height (mm)	Weight (kg)
Fixed	600 x 600	145	22
	3800 x 1750		315
Opening	600 x 600	205	61
	2800 x 1300		193

Roof Applications

Glass Link modules are designed for installation at a longitudinal pitch (along length) of 0-15°, and a lateral pitch (across span) of 2°- 35° to prevent water ponding on the glass (leading to rapid dirt build up) and to ensure drainage between modules. For rooflights with opening modules, hinges should be at the ridge of the rooflight span.

*Some larger sizes will require a minimum pitch of up to 5° across span.



Opening Options

Modules can be opened on concealed hinges using manual worm drive or powered actuators to create a large ventilation area. Opening rooflights can contribute to room ventilation as required by Part F of the Building Regulations.

Opening Options	
Opening Type	Description
Manual Opening (MLD)	Hinged opening module which is operated manually via a worm gear drive with an extension pole
Powered Opening (PCD/PCR)	Powered hinged opening module with completely concealed operating mechanism. Opened and closed using a control switch or remote control
Sensor Controlled Powered Opening (PCS)	Powered hinged opening module which includes rain sensors for automatic operation

Glazing Performance

Brett Martin Glass Link comes with a 6mm toughened outer pane, 90% argon filled cavity, and 9.5mm or 11.5mm laminated inner pane with 1.5mm PVB interlayer and soft coat Low E coating as standard. Other glazing options are available on request. If non-standard glass is used, glazing performance may differ from the table shown.

Glazing Performance			
Light		Solar Energy	
Transmission	77%-78%	G-Value	0.56-0.57
Reflection	12%	Shading coefficient	0.64-0.65

Thermal Performance

Thermal transmittance of rooflights is assessed in the horizontal plane for compliance with Part L of building regulations.

There is currently no method set out for assessing the thermal performance of flat glass rooflights, so the method shown in NARM NTD2 has been adopted as the most appropriate. Thermal Transmittance is defined as a U_f value (for a rooflight fitted to a builders upstand). All variants of Brett Martin Glass Link have a better thermal transmittance than the limiting value in Part L of 2.2 W/m²K. Depending on configuration, Brett Martin Glass Link typically achieves a U_f value of 1.90 to 2.1 W/m²K (assessed horizontally). For U_d values calculated in the vertical plane please contact Brett Martin Daylight Systems.

Acoustic Performance

Glass Link modules achieve a direct airborne sound insulation value of 39db (Rw).

Wind and Snow Loads

Glass Link modules have been tested to show that when correctly fitted in accordance with our instructions, they will resist wind loads calculated in accordance with BS EN 1991-1-4: 2005, and imposed loads in accordance with BS EN 1873: 2005

Resistance to Snow and Wind Loads (Figures in excess of)	
Snow Load (N.m ²)	600
Wind Load (N.m ²)	1200



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Thermal Fractures

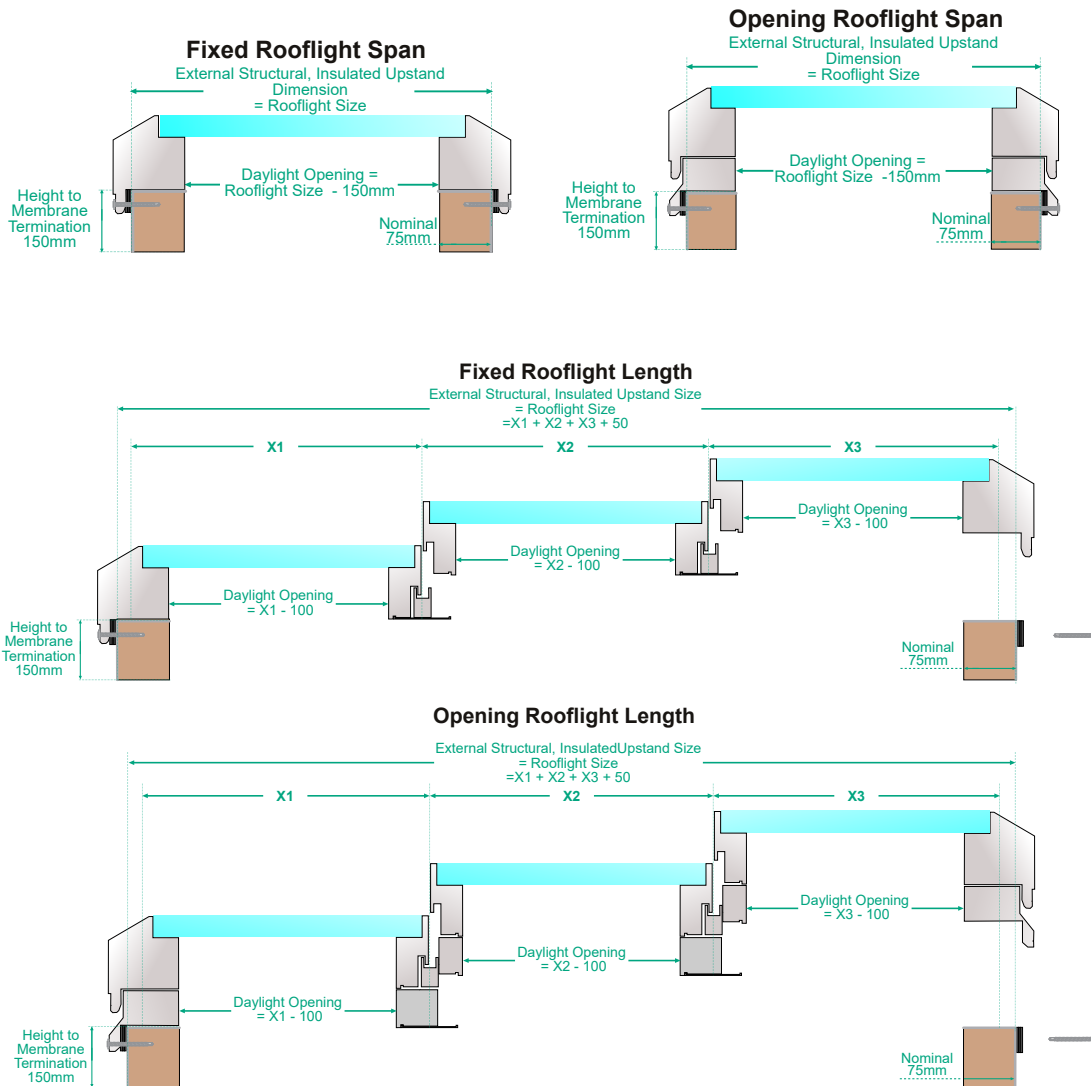
Brett Martin Glass Link rooflights are manufactured using double glazing which includes an inner pane of annealed, laminated safety glass, which is essential for ensuring the safety of those above the rooflight through non-fragility, and those below the rooflight through the prevention falling glass from accidental breakage.

In some circumstances, annealed, laminated safety glass can be subject to thermal stress fracture in the event of uneven heat build-up directly under the glass. Installation of blinds, or any other alterations made to the lightwell below the rooflight, must be done so with consideration to the risk of thermal stress fracture. In the case of blinds, the risk of thermal stress fracture can never be fully removed, but it can be reduced by choosing light coloured blinds, positioning them as far away from the glass as possible, and adding ventilation to the rooflight specification.

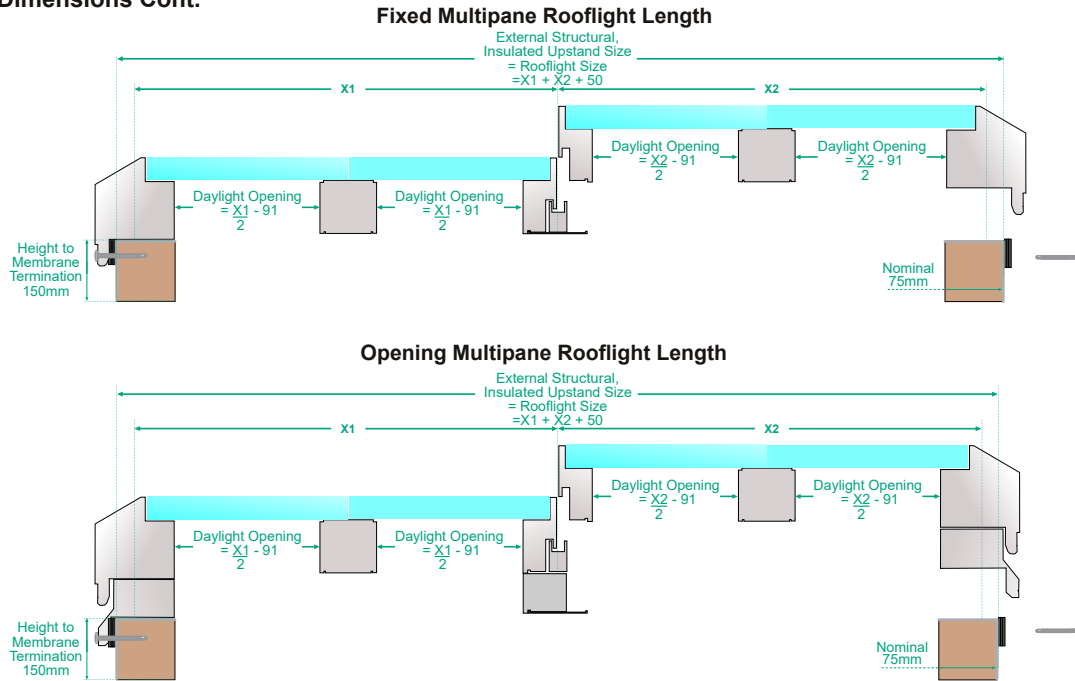
More detailed guidance can be obtained upon request - please contact the technical department.

Product Dimensions

Glass Link modular rooflights are designed to be fitted directly to a fully weathered structural, insulated upstand by others. Large modules can be glazed with multiple panes of glass to avoid the need for heavier and more expensive glass specifications.



Product Dimensions Cont.



Installation, Handling, Maintenance & Storage

Full installation details, maintenance and product care details are available on request.