



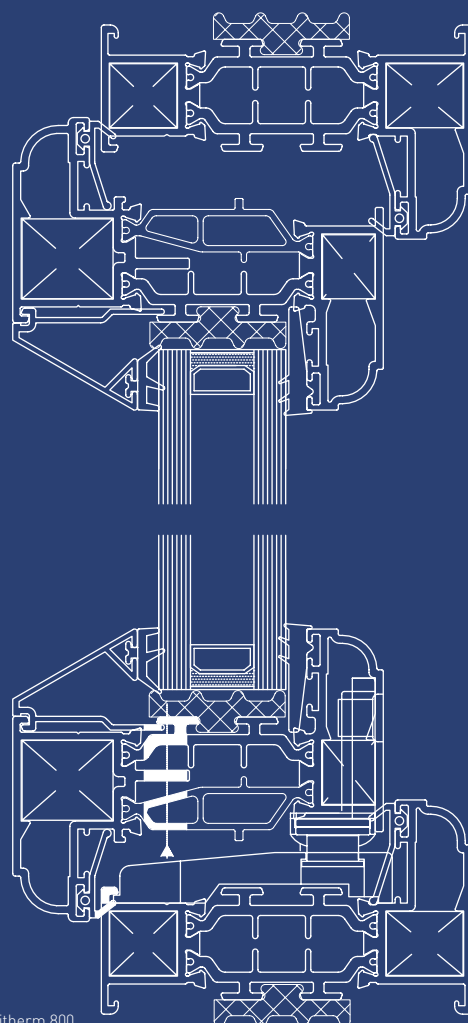
**smart**  
architectural aluminium

## Alitherm Series

The Alitherm series of windows offer a range of high quality glazing solutions for side hung, top hung open out, top swing reversible and parallel opening casements, suitable for both the residential and commercial markets.

The series features products that achieve:

- Window Energy Rating A
- BRE Green Guide A
- U Values up to 1.2 W/m<sup>2</sup>K depending on system and glass unit
- British Standard Kitemarked series achieving:  
KM81580 PAS 24:2012  
KM81543 BS4873



Alitherm 800



BES 668681



FM21582



EMS554307



OHS571955



ENMS634370



# Alitherm Series

This versatile range of profiles can provide many solutions such as traditional casement windows inspired by the elegance and styling of timber products, or automatic parallel opening commercial windows designed to provide a balanced airflow in multi-storey commercial buildings.

All Alitherm profiles utilise Smart's innovative polyamide thermal break technology which creates a barrier between the cold air outside and the warm air inside. This technology significantly reduces thermal transmittance and enhances the overall U Value of a product. Alitherm products are available in a choice of standard or non-standard colours, including metallic, dual colour, Smart's Sensations textured, and Alchemy anodised effect finishes. The series features the new Alitherm 300, Alitherm 600, Alitherm 700 and Alitherm 800 windows, designed to meet the exacting requirements of Document L 2010.

## Alitherm 300

### Application

- ◆ All general light use applications

### Features

- ◆ The system features an extended polyamide thermal break which improves the overall U Value of the profile, allowing Alitherm 300 to achieve a Window Energy 'A' Rating when used in conjunction with the correct double or triple glazed unit
- ◆ The system is suitable for both internally or externally beaded, side or top hung open out windows
- ◆ Profiles have the option of either ovolo, chamfered or square edges
- ◆ Frame options for both standard and slim-line stays
- ◆ Option of either multi-point or cockspur locking handles

### Finish

Single or dual colour, marine quality powder coat as standard

### Technical Performance

<b>U Value</b>	U Value 1.5W/m <sup>2</sup> K using 1.0 centre pane U Value 1.2W/m <sup>2</sup> K using 0.7 centre pane
<b>WER</b>	A
<b>Air</b>	Class 4, 600Pa
<b>Water</b>	Class E 1200Pa

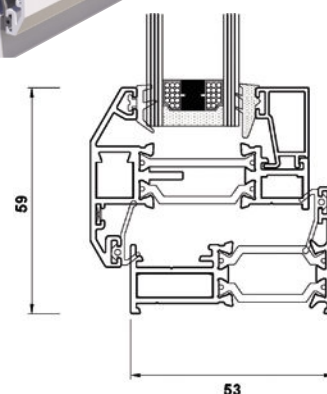
**Wind** Class AE, 2400Pa

**Document L Compliant**

### Dimensions

<b>Frame Depth</b>	53mm & 76mm
<b>Glass</b>	24mm, 28mm, 32mm & 36mm double or triple glazed units
<b>SH Max o/a Width</b>	700mm
<b>SH Max o/a Height</b>	1400mm
<b>TH Max o/a Width</b>	1400mm
<b>TH Max o/a Height</b>	1300mm

(For sizes outside of these parameters, contact Smarts Technical).



# Alitherm 600

## Application

- ♦ All general light use applications including commercial

## Features

- ♦ An enhanced system designed to comply with the revisions to the Building Regulations
- ♦ Document L compliant
- ♦ System can achieve Window Energy 'A' Rating
- ♦ Profiles feature an extended polyamide thermal break to enhance thermal performance
- ♦ Fabrication is by method of crimped or mechanical corners
- ♦ Ovolo, chamfered or square profiles
- ♦ British Standard Kitemarked system KM 81580 KM 81543

## Finish

Single or dual colour, marine quality powder coat as standard

## Technical Performance

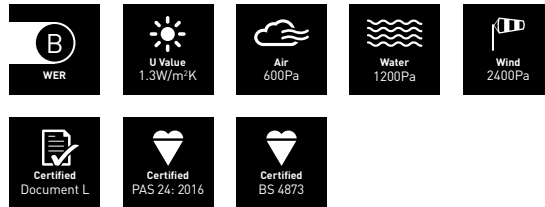
<b>U Value</b>	1.3W/m <sup>2</sup> K using correct sealed unit
<b>WER</b>	B
<b>Air</b>	Class 4, 600Pa
<b>Water</b>	Class E 1200Pa
<b>Wind</b>	Class AE, 2400Pa

## Document L Compliant

## Dimensions

<b>Frame Depth</b>	59mm & 70mm
<b>Glass</b>	28mm to 38mm double or triple glazed units
<b>SH Max o/a Width</b>	1000mm
<b>SH Max o/a Height</b>	1400mm
<b>TH Max o/a Width</b>	1400mm
<b>TH Max o/a Height</b>	1500mm

(For sizes outside of these parameters, contact Smarts Technical).



# Alitherm 800

## Application

- ♦ All general light use applications

## Features

- ♦ Highest thermal performance window suitable for all general use applications
- ♦ Will achieve U Values under 1.6w/m<sup>2</sup>K when used in conjunction with correct double glazed sealed unit
- ♦ Alitherm 800 windows achieve a Window Energy 'A' Rating
- ♦ Extended chambered polyamide thermal breaks provide excellent thermal performance
- ♦ British Standard Kitemarked system KM 81580 KM 81543
- ♦ New flush casement option

## Finish

Single or dual colour, marine quality powder coat as standard

## Technical Performance

<b>U Value</b>	1.3W/m <sup>2</sup> K using 0.7 centre panel 1.5W/m <sup>2</sup> K using 1.0 centre panel
<b>WER</b>	A
<b>Air</b>	Class3, 600Pa
<b>Water</b>	Class E 1050Pa

**Wind** Class A5, 2000Pa

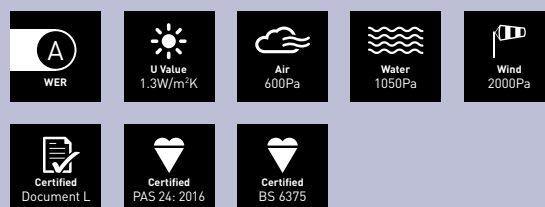
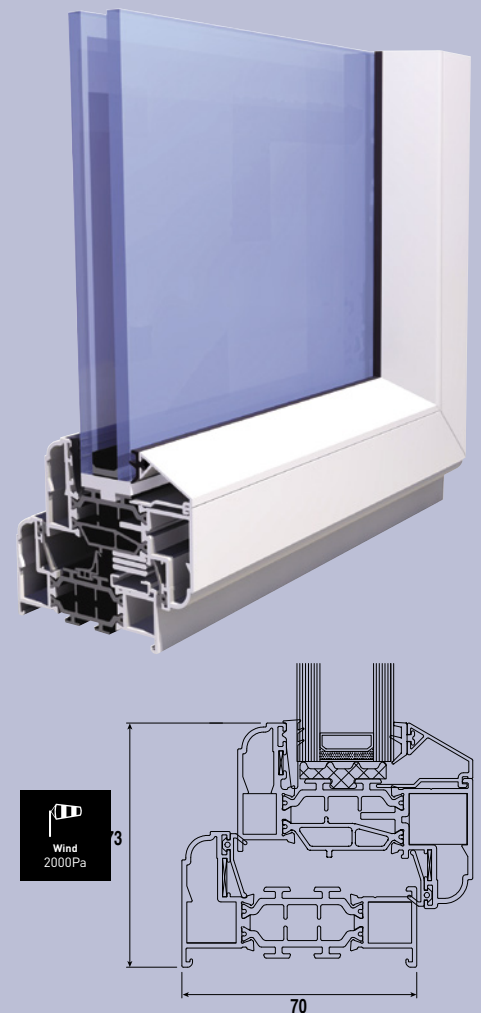
**Security** PAS 24:2012

## Document L Compliant

## Dimensions

<b>Frame Depth</b>	70mm
<b>Glass</b>	24mm, 28mm double or triple glazed units
<b>SH Max o/a Width</b>	700mm
<b>SH Max o/a Height</b>	1400mm
<b>TH Max o/a Width</b>	1400mm
<b>TH Max o/a Height</b>	1300mm

(For sizes outside of these parameters, contact Smarts Technical).



# Alitherm 700

Alitherm Parallel is an innovative solution for enhanced natural ventilation. The system allows for a balanced, effective airflow whilst maintaining security and safety. The system can also be either a side or top hung casement, or top swing reversible window.



## Application

- Commercial applications, suitable for multi-storey

## Features

- Alitherm 700 is ideal for insertion into curtain wall facades in both low and high rise commercial buildings
- The system is suitable for use as either replacement windows in existing buildings, or for installation into new builds
- Alitherm 700 incorporates internally beaded vents suitable for either cockspur or shoot-bolt locking.
- The system is also suitable for use with chain-operators, operated either individually or as part of an integrated automated solution for building climate control

## Finish

Single or dual colour, marine quality powder coat as standard

## Technical Performance

<b>U Value</b>	1.6W/m <sup>2</sup> K using correct sealed unit 1.3W/m <sup>2</sup> K using triple glazed unit of correct sealed unit
<b>Air</b>	Class 4, 600Pa
<b>Water</b>	Class 9A, 600Pa
<b>Wind</b>	Class E, 2400Pa
<b>Security</b>	BS 7950 (Casement and Parallels) PAS24:2012 (Reversible)

## Dimensions

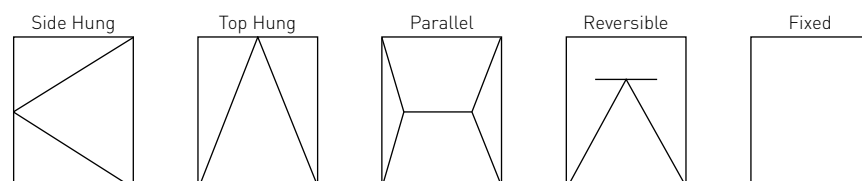
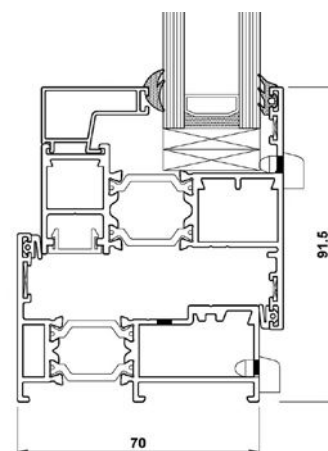
<b>Frame Depth</b>	70mm
<b>Glass</b>	28mm double or triple glazed units

<b>Design Limitations</b>	width	height
<b>Side Hung</b>	840mm	1500mm
<b>Top Hung</b>	1600mm	1600mm
<b>Parallel 1800</b>	1800mm	2100mm
<b>Reversible</b>	1500mm	1588mm
<b>Fixed</b>	2100mm	2100mm

\*Parallel windows over 1500mm wide or weighing over 100kg should be motorised operation only

## PAS24:2016

<b>Design Limitations</b>	width	height
<b>Side Hung</b>	840mm	1500mm
<b>Top Hung</b>	1600mm	1600mm
<b>Parallel 1800</b>	2100mm	2100mm
<b>Reversible</b>	1500mm	1588mm
<b>Fixed</b>	2100mm	2100mm



Drawings not to scale