

# Automation for Windows, Skylights and Louvres



20 YEARS  
IN AUSTRALASIA

HOME  
MOTION BY

somfy®

# AUTOMATION FOR WINDOWS, SKYLIGHTS AND LOUVRES

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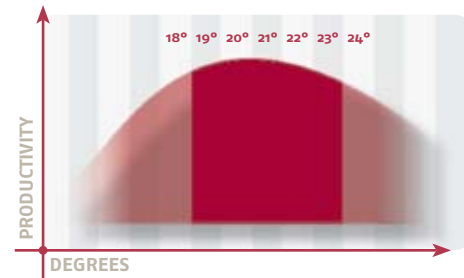
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## NATURAL VENTILATION an essential requirement

Clean healthy air - along with good heat and light - is very important for the wellbeing and health of people in a building. Automatic control of ventilation openings can contribute significantly to maintaining a healthy and comfortable indoor climate.



\* Relative air humidity between 30% and 70% is comfortable and a minimum of 30-40 m<sup>3</sup> of fresh air must be supplied per person. Source: Arbo and environment - Indoor climate - Climate standard NEN-150 7730

## ADVANTAGES OF MOTORISED WINDOWS

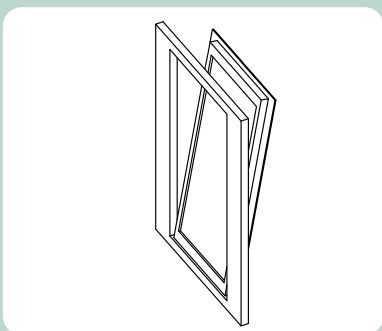
Apart from supplementing the exchange of clean air and the creation of thermal comfort, there are other clear advantages allied to natural ventilation from motorised windows:

- reduced reliance on air conditioning units
- lower energy use lower operational costs
- creation of a healthy indoor climate as a condition for physical and mental wellbeing
- positive influence on corporate identity
- improve a building's performance and value

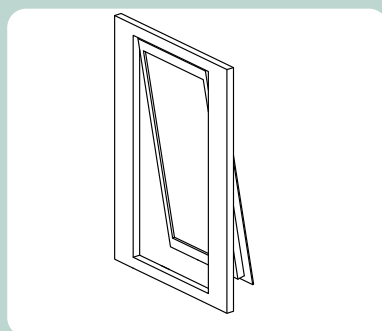


## APPLICATIONS

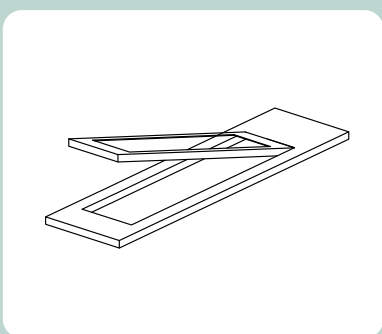
Somfy window openers may be used with the following windows and shade management systems:



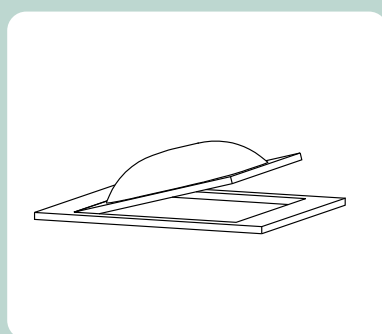
**TOP OPENING WINDOW**



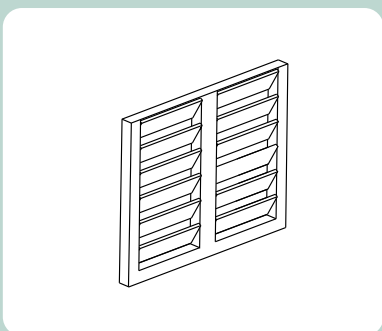
**BOTTOM OPENING WINDOW**



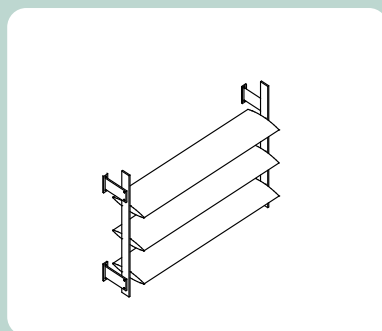
**SKYLIGHTS**



**DOMES WINDOWS**



**LOUVRES**



**SUN SHADES**

# SOMFY WINDOW MOTORS

Somfy's range of window openers includes :

## Somfy Linkeo 2 series

- Maintenance free chain motor
- Strong duplex chain
- Easy integration because of small sizes
- Voltage: 230Vac or 24Vdc



## Somfy Linkeo 4 series

- Maintenance free chain motor
- Strong duplex chain
- Large opening angle because of opening up to 835 mm
- Voltage: 230Vac or 24Vdc

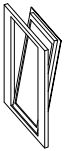


## Somfy Rodeo series

- Maintenance free linear motor
- Variable opening
- High degree of protection IP55
- Voltage: 230Vac or 24Vdc



*See pages 12 to 17 for full technical specifications*

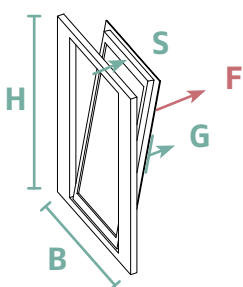


# SOLUTIONS FOR TOP OPENING WINDOWS

Window properties	height of the window	500mm - 1000mm		1000mm - 2000mm		2000mm - 2500mm		
	width of the window	< 1500mm		< 1500mm		< 1500mm		
↓	desired opening (mm)	200	250	250	420	420	600	835
	power required *(N)	200	200	200	400	400	400	400
choice of motor	desired feed	240V~	240V~	240V~	240V~	240V~	240V~	
		24V=	24V=	24V=	24V=	24V=	24V=	24V=
	<b>motor type</b>	<b>Linkeo 2</b>	<b>Linkeo 2</b>	<b>Linkeo 2</b>	<b>Linkeo 4</b>	<b>Linkeo 4</b>	<b>Linkeo 4</b>	<b>Linkeo 4</b>
	Ref number	230V 1 230 001 24V 1 230 000	1 230 003 1 230 002	1 230 003 1 230 002	1 230 007 1 230 005	1 230 007 1 230 005	1 230 008 1 230 006	1 230 004



\* Calculation of the power required is based on the most common systems on the market For an exact calculation use the following formula.



F = needed force in Kg  
 S = desired stroke in mm  
 H = height of the window in mm  
 G = weight of the window in Kg

$$F = \frac{S}{H} \times \frac{G}{2}$$

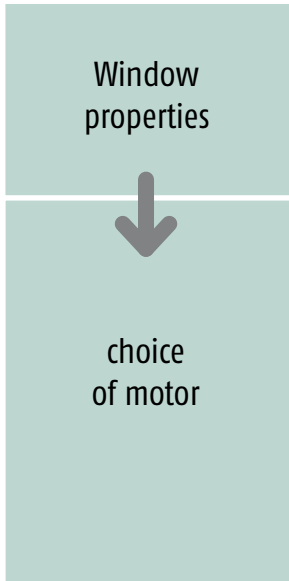
- The width (B) of the window must not exceed 1500mm.
- The height of the window must be at least twice the size of the desired opening, this in connection with the maximum sag of the chain.

For control options see pages 10 & 11



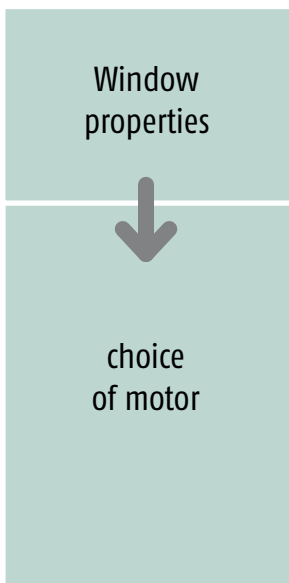
# SOLUTIONS FOR BOTTOM OPENING WINDOWS

## with chain motors



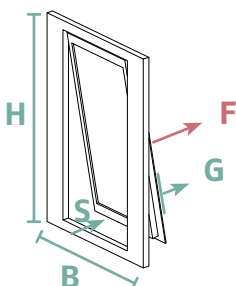
height of the window	500mm - 1000mm		1000mm - 2000mm		2000mm - 2500mm		
width of the window	< 1500mm		< 1500mm		< 1500mm		
desired opening (mm)	200	250	250	420	420	600	835
power required *(N)	200	200	200	400	400	400	400
desired feed	240V~	240V~	240V~	240V~	240V~	240V~	
	24V=	24V=	24V=	24V=	24V=	24V=	24V=
<b>motor type</b>	<b>Linkeo 2</b>	<b>Linkeo 2</b>	<b>Linkeo 2</b>	<b>Linkeo 4</b>	<b>Linkeo 4</b>	<b>Linkeo 4</b>	<b>Linkeo 4</b>
Ref number	230V 1 230 001 24V 1 230 000	1 230 003 1 230 002	1 230 003 1 230 002	1 230 007 1 230 005	1 230 007 1 230 005	1 230 008 1 230 006	1 230 004

## with rod motors



height of the window	500mm-1000mm	1000mm - 2000mm		2000mm - 2500mm			
width of the window	< 1500mm	< 1500mm		< 1500mm			
desired opening (mm)	0-200	0-200	0-300		450	1000	450
power required *(N)	200	200	200	400	400	400	400
desired feed	240V~	240V~	240V~	240V~	240V~	240V~	240V~
	24V=	24V=	24V=	24V=	24V=	24V=	24V=
<b>motor type</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>
Ref number	230V 1 230 009 24V 1 230 010	1 230 009 1 230 010	1 230 011 1 230 012	1 230 015 1 230 016	1 230 011 1 230 012	1 230 015 1 230 016	1 230 013 1 230 014

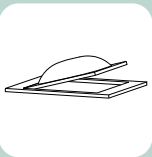
\* Calculation of the power required is based on the most common systems on the market For an exact calculation use the following formula.



F = needed force in Kg  
 S = desired stroke in mm  
 H = height of the window in mm  
 G = weight of the window in Kg

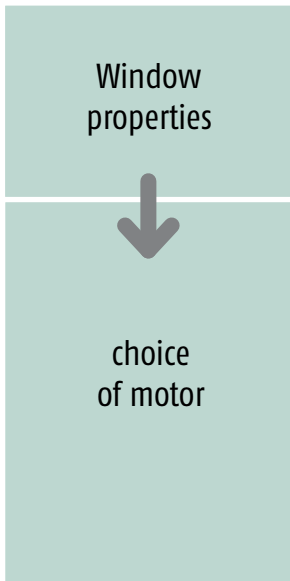
$$F = \frac{S}{H} \times \frac{G}{2}$$

- The width (B) of the window must not exceed 1500mm.



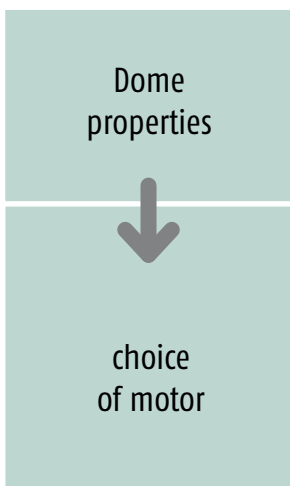
# SOLUTIONS FOR SKYLIGHTS & DOMES

## Skylights



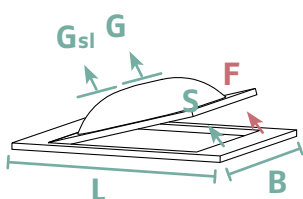
height of the window	500mm - 1000mm		1000mm - 2000mm		Skylights are available in many types. The manner of rotation can vary as well.  A Velux type skylight in a horizontal roof that can be tilted to 30° has a distributed weight of 50% at the hinges and 50% at the motor.  In skylights that swivel in the middle, the weight is nil and the power needed is determined only by the friction of the window.
width of the window	< 1500mm		< 1500mm		
desired opening (mm)	200	250	250	420	
power required *(N)	200	200	200	400	
desired feed	240V~	240V~	240V~	240V~	
	24V=	24V=	24V=	24V=	
<b>motor type</b>	<b>Linkeo 2</b>	<b>Linkeo 2</b>	<b>Linkeo 2</b>	<b>Linkeo 4</b>	
Ref number	230V 1 230 001 24V 1 230 000	1 230 003 1 230 002	1 230 003 1 230 002	1 230 007 1 230 005	

## Domes



width of the dome	< 1500mm	< 1500mm		< 1500mm			
desired opening (mm) (adjustable)	0-200	0-200	0-300	0-300		0-500	
power required *(N)	450	450	450	1000	450	1000	450
desired feed	240V~	240V~	240V~	240V~	240V~	240V~	240V~
	24V=	24V=	24V=	24V=	24V=	24V=	24V=
<b>motor type</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>
Ref number	230V 1 230 009 24V 1 230 010	1 230 009 1 230 010	1 230 011 1 230 012	1 230 015 1 230 016	1 230 011 1 230 012	1 230 015 1 230 016	1 230 013 1 230 014

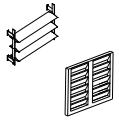
\* Calculation of the power required is based on the most common systems on the market For an exact calculation use the following formula.



F = needed force in Kg  
 S = desired stroke in mm  
 H = height of the window in mm  
 G = weight of the window in Kg  
 Gst = snow load per m2

$$F = \frac{G + G_{st}}{2}$$

- The width (B) of the window must not exceed 1500mm.
- The height of the window must be at least twice the size of the desired opening, this in connection with the maximum sag of the chain.



# SOLUTIONS FOR LOUVRES & SUN SHADES

Louvre properties



choice of motor



Sun shade properties

## LOUVRES

Louvre windows are made from a set of small transparent or opaque louvres made of glass or plastic. Theoretically the louvres are in balance and therefore do not require power to turn them. As a result the 450 N motor is often sufficient to handle the friction in the system. Check with every system what extension is wanted. The most common type is 200 mm but there are other possibilities. The motor is normally attached to the back of the system and is hidden in the width of the profile.

desired opening (mm) (adjustable)	0-200	0-200	0-300		0-300		0-500
power required *(N)	450	450	450	1000	450	1000	450
desired feed	240V~	240V~	240V~	240V~	240V~	240V~	240V~
	24V=	24V=	24V=	24V=	24V=	24V=	24V=
<b>motor type</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>	<b>Rodeo</b>
Ref number	230V 24V	1 230 009 1 230 010	1 230 009 1 230 010	1 230 011 1 230 012	1 230 015 1 230 016	1 230 011 1 230 012	1 230 015 1 230 016 1 230 013 1 230 014

## SUN SHADES

Sun Shades in slats or strips consist of a set of strips (usually between 100 and 400 mm wide) which are mounted in a horizontal or vertical configuration. It is almost impossible to calculate the power required in advance because it depends on the friction of the strips and the power transfer. The power of the motor must also be estimated higher if you expect that the strips will not continue to rotate perfectly around their axis over a longer period of time. Because of the nature of the application the motor may need to be fully exposed to the weather. When exposed to the weather Somfy recommend covering the motor to ensure protection.



For control options see pages 10 & 11

For individual or stand alone applications, Somfy provides a complete range of intelligent controls to maximize functionality and convenience.

Remote controls, wall switches, master switches, weather sensors and timers are all available with options for individual or group motor control.

You may choose your Somfy controls to be hard wired or for easy installation, use Somfy wireless RTS technology.

### WIRELESS RTS OPERATION

- Worldwide standard for wireless operation of windows and sunshades
- Minimum 20 metres range
- Easy installation
- Maximum operational comfort

### EXAMPLE OF APPLICATION



230Vac

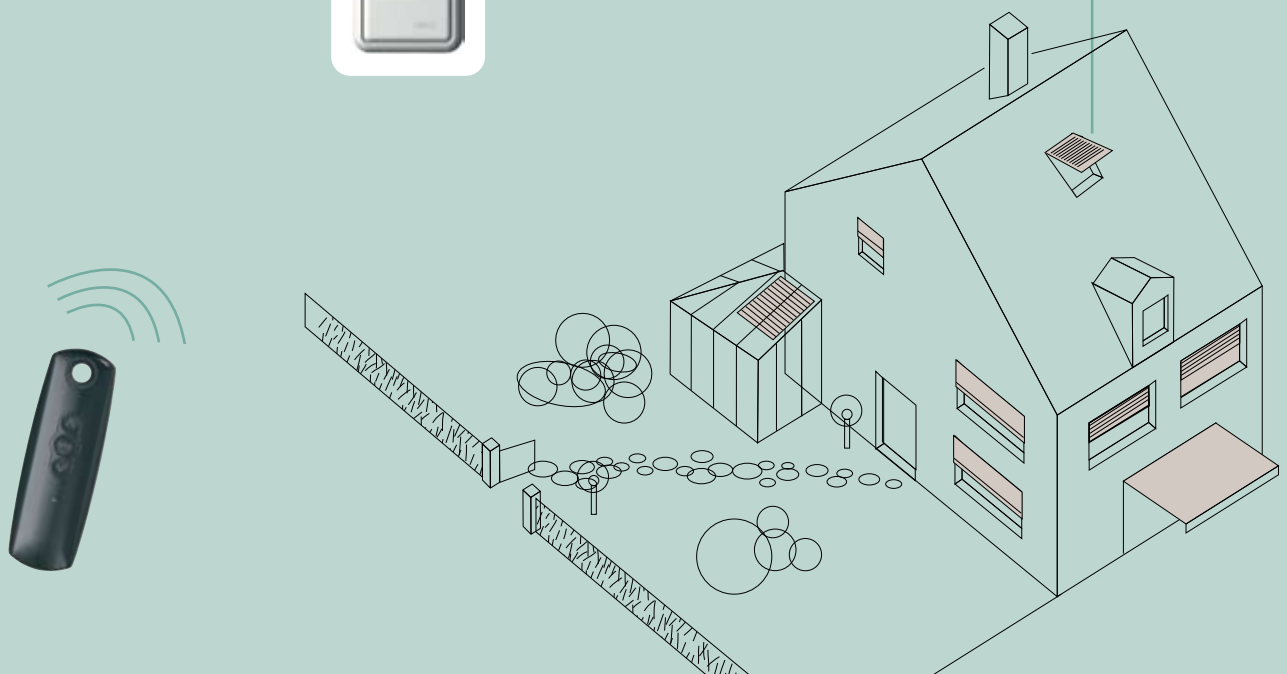


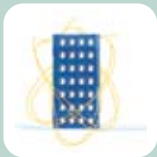
External RTS Receiver

or



Internal RTS Receiver





# SOMFY CONTROL SOLUTIONS

## Façade Management

- 'stand alone system'
- integrated system
- number of motors
- budget

- functionality
- flexibility

**Controlling the thermal exchanges in a building will improve the thermal and visual comfort for building occupants as well as optimising the energy efficiency of the building.**

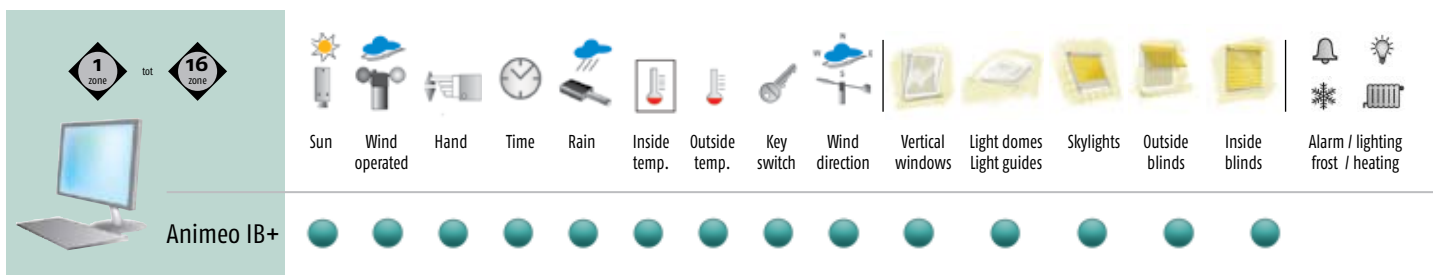
"Animeo" is the name of the Somfy solution for façade management and environmental control. The Animeo Façade Management System offers the ability to centrally monitor and control all motorised applications (eg windows, blinds, awnings, louvres) on all building facades via a combination of timers, sun tracking devices & weather sensors.

Animeo Façade Management System can control up to 6400 motorised applications and is easily integrated with other building automation systems (eg LON, EIB). Control over any individual application remains possible with the Somfy remote control units.

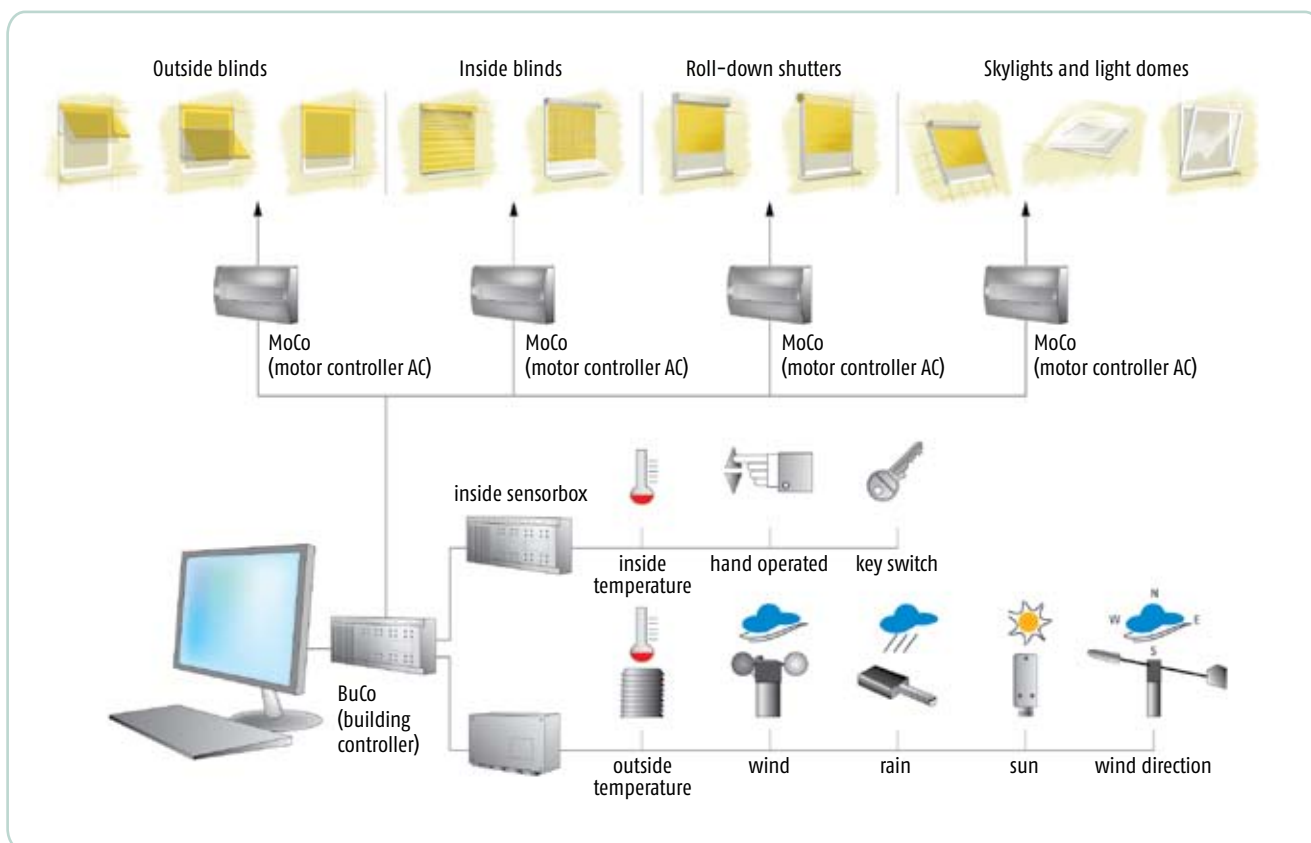
As both natural ventilation and solar protection are critical aspects in the performance of a building, maximising these functionalities via Somfy's centrally monitored Animeo Façade Management System will improve the thermal and visual comfort for building occupants as well as reducing costs incurred by air conditioning, heating and lighting.

**Effective façade management reduces reliance on artificial lighting, heating and cooling sources – improving productivity, reducing energy consumption and lowering operational costs.**

### Animeo Project control via PC



### EXAMPLE OF APPLICATION

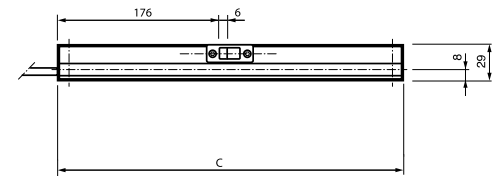
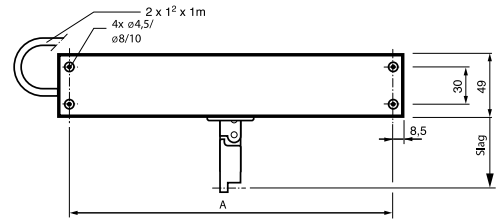
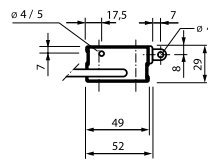


# TECHNICAL INFORMATION

## Somfy Linkeo 2 series – 230Vac



### Dimensions



Opening (mm)	A (mm)	B (mm)
200	324	341
250	349	366

### Specifications

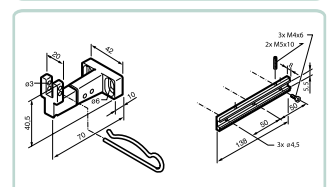
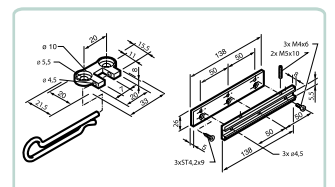
Article number	1 230 001	123 003
Power supply voltage	220-240V-50Hz	220-240V-50Hz
Opening	200 mm	250 mm
Push and pull force	200 N	200 N
Current strength	0.30 A	0.30 A
Speed	10 mm/s	10 mm/s
Environmental temperature	-10°C to +40°C	-10°C to +40°C
Maximal utilisation	4 min.	4 min.
End switch open/close type	hall diode / absorption	hall diode / absorption
Protection class	IP 20	IP 20
Colour	anodised silver	anodised silver

### Points for consideration

- Minimum window height: 500 mm
- Maximum window width: 1500 mm
- Power to be delivered may not exceed: 200 N

### Attachment materials

Attachment materials for top opening windows and skylights are always included with delivery

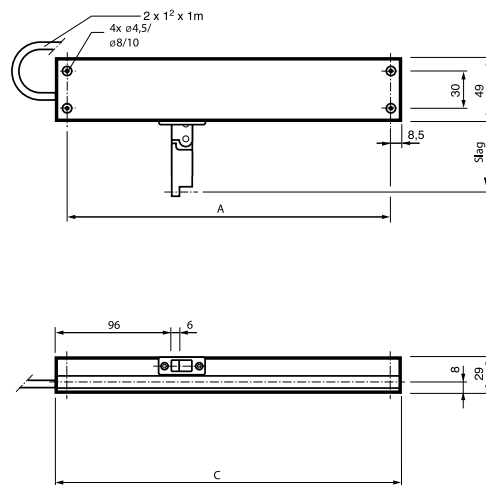
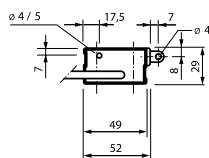


# TECHNICAL INFORMATION

## Somfy Linkeo 2 series – 24Vdc



### Dimensions



Opening (mm)	A (mm)	B (mm)
200	224	261,4
250	269	286,4

### Specifications

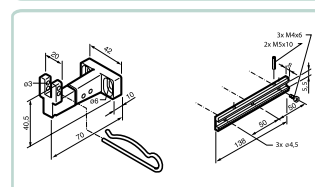
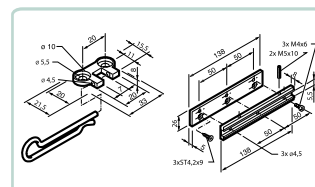
Article number	1 230 000	123 002
Power supply voltage	24V=	24V=
Opening	200 mm	250 mm
Push and pull force	200 N	200 N
Current strength	0.80 A	0.80 A
Speed	10 mm/s	10 mm/s
Environmental temperature	-10°C to +40°C	-10°C to +40°C
Maximal utilisation	4 min.	4 min.
End switch open/close type	hall diode / absorption	hall diode / absorption
Protection class	IP 20	IP 20
Colour	anodised silver	anodised silver

### Points for consideration

- Minimum window height: 500 mm
- Maximum window width: 1500 mm
- Power to be delivered may not exceed: 200 N

### Attachment materials

Attachment materials for top opening windows and skylights are always included with delivery





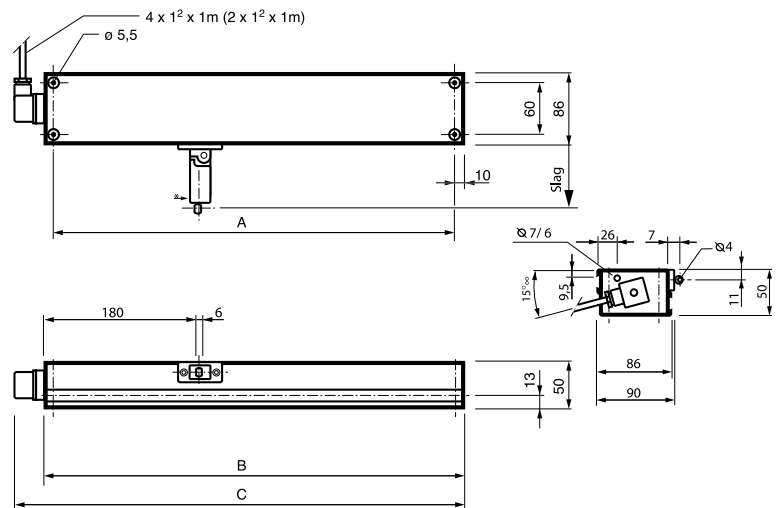
# TECHNICAL INFORMATION

## Somfy Linkeo 4 series – 24Vdc



### Dimensions

Opening (mm)	A (mm)	B (mm)	C (mm)
420	458	478	514
600	553	573	609
835	667	687	723



### Specifications

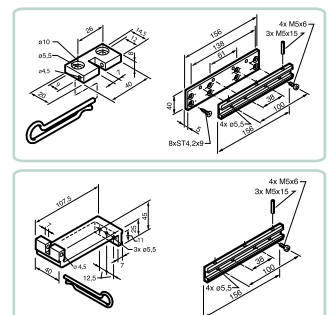
	1 230 005	1 23 006	1 230 004
Article number	1 230 005	1 23 006	1 230 004
Power supply voltage	24V=	24V=	24V=
Opening	420 mm	600 mm	835 mm
Push and pull force	400 N	400 N	200 N / 400 N
Current strength	2.3 A	2.3 A	2.3 A
Speed	22 mm/s	22 mm/s	22 mm/s
Environmental temperature	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C
Maximal utilisation	4.5 min.	4.5 min.	4.5 min.
End switch open/close type	reed	reed	reed
Protection class	IP 22	IP 22	IP 22
Colour	anodised silver	anodised silver	anodised silver

### Points for consideration

- Minimum window height: 1100 mm
- Maximum window width: 1500 mm
- Power to be delivered may not exceed: 400 N

### Attachment materials

Attachment materials for top opening windows and skylights are always included with delivery







## SAFETY RECOMMENDATIONS

Somfy recommend the following safety checks before installing & operating the window opener:

- Make sure that the strength of the motor selected is in agreement with the dimensions and the weight of your application.
- Check that the motor attachment materials are firmly fixed to both the motor and the window or louvre application.
- Make sure that the motor is correctly aligned with the attachment bracket that is placed on the window. (an alignment that is not correctly fitted will have a detrimental effect on the operational life of both the motor and the window)
- If the window opener is exposed to the weather, Somfy recommend covering the motor to ensure protection.

## SOMFY TECHNICAL SUPPORT

**Somfy Customer Service Phone (02) 8845 7272**



Somfy offers a comprehensive technical support program to assist with the design, planning, installation and programming of our window openers & automation systems.

Somfy will assist with:

- Advice and recommendations on motor and control selection
- Installation and on site support
- Phone support for programming
- Provision of wiring diagrams

Somfy products are synonymous with innovation, quality, safety and durability. All Somfy motors, controllers and sensors carry a 5 year warranty.



**somfy.com.au**  
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