



TECHNICAL FILE

# Skylux<sup>®</sup>

Vertical sunblinds: Axiom and Element range



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# 1. Powder coat finish

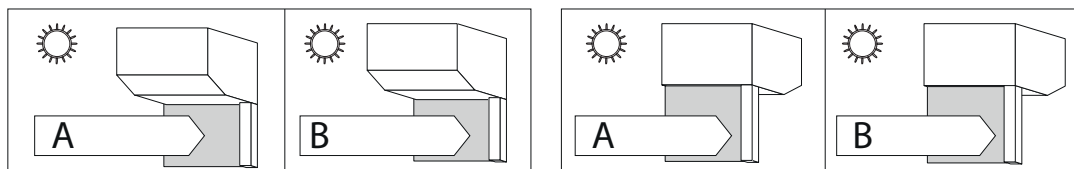
- **Standard colours**
  - RAL 9010 white (powder code RWB964)
  - RAL 7016 ST antracite grey structured (powder code 029/71334)
- **Trend colours**
  - RAL 9001 (powder code AE70019220225)
  - RAL 9005 ST (powder code AE03054900520)
  - RAL 9006 ST (powder code 029/90146)
  - RAL 9007 ST (powder code 029/90147)
  - RAL 9009 ST (powder code 029/80077)
  - RAL 9010 ST (powder code AE03059901020)
  - RAL 3004 ST (powder code AE03053300420)
  - RAL 7039 ST (powder code AE03057703920)
  - RAL 8014 ST (powder code AE030588001420)
- **Non-standard colours**
  - Powder code to be specified.

## 2. Fabric choice

### 2.1. Confection

#### Orientation of the fabric: A/B

- Copaco Serge 600 fabric has a different weave and possibly a different color for side A (front of the sample) and side B (back of the sample) of the fabric. For this reason, the exterior side of the fabric must be indicated. Please take into account the orientation of the sunshade installation.



#### Seam position: low

- Screens of a certain height are made of 2 pieces of fabric with horizontal seams. The position can be high or low on the screen. We recommend choosing the low position as this will reduce the imprint of the seam on the overlaying fabric when the screen is rolled up. The maximum width of the fabric strips depends on the fabric type (1,4-3 m).

### 2.2. Fabric type

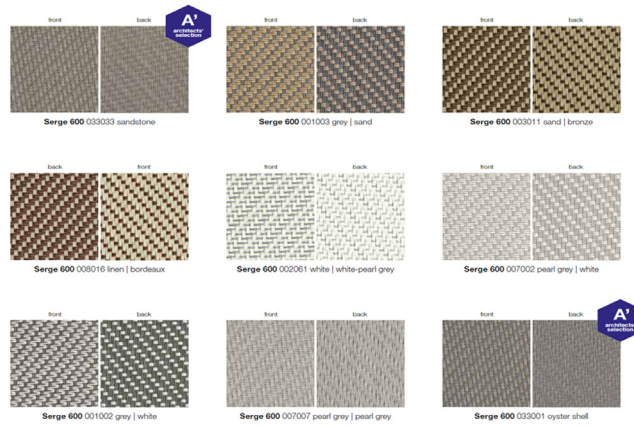
#### • Copaco – Serge 600

##### Properties

Material:	Fibreglass 42% - PVC 58%
Transmission:	5% openness factor
Weight:	0.525 g/m <sup>2</sup>
Thickness:	0.74 mm
Colour fastness to artificial light:	>7 (ISO 105 B02)
Colour fastness to artificial weathering:	>7 (ISO 105 B04)
Fire resistance:	C-s3, d0 (UNE-EN 13501-1:2007)



- Fabric weaving and dominant colour of the front fabric can be different from the rear fabric.



- The backdrop is visually more defined through dark fabric colours (despite the equal openness factor).



### Colours

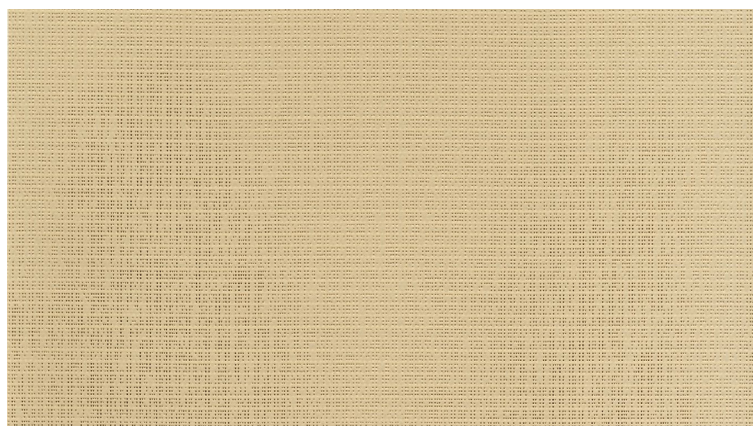
1	002002 - white   white	26	001005 - grey   mandarin
2	008002 - linen   white	27	008015 - linen   lichen
3	008008 - linen   linen	28	001074 - grey   yellow-green
4	003003 - sand   sand	29	001012 - grey   green
5	003002 - sand   white	30	001014 - grey   turquoise
6	002007 - white   pearl grey	31	007009 - pearl grey   blue azure
7	008007 - linen   pearl grey	32	001070 - grey   pearl grey-bleu azure
8	007082 - pearl grey   white-sand	33	001009 - grey   blue azure
9	008003 - linen   sand	34	001001 - grey   grey
10	033033 - sandstone	35	001061 - grey   white-pearl grey
11	001003 - grey   sand	36	001010 - grey   charcoal
12	003011 - sand   bronze	37	010010 - charcoal   charcoal
13	008016 - linen   bordeaux	38	011011 - bronze   bronze
14	002061 - white   white-pearl grey	39	010011 - charcoal   bronze
15	007002 - pearl grey   white	40	030030 - pure black
16	001002 - grey   white	41	047047 - anthracite grey
17	007007 - pearl grey   pearl grey	42	032040 - Mango
18	033001 - oyster shell	43	033041 - Maroon
19	031031 - jade river	44	001045 - Coconut
20	032031 - duck egg	45	008001 - Safari
21	032032 - wet sand	46	033043 - Moss
22	033032 - soft clay	47	001044 - Palm
23	001006 - grey   yellow	48	001094 - Lagoon
24	001004 - grey   gold	49	001042 - Shade
25	008079 - linen   grey-gold		

### • Serge ferrari - Soltis 92

#### Properties

Material:	Polyester weave with PVC coating
Transmission:	3% openness factor
Weight:	0.42 g/m <sup>2</sup>

Thickness:	0.45 mm
Fire resistance:	B-s2,d0 (EN 13501-1:2007)

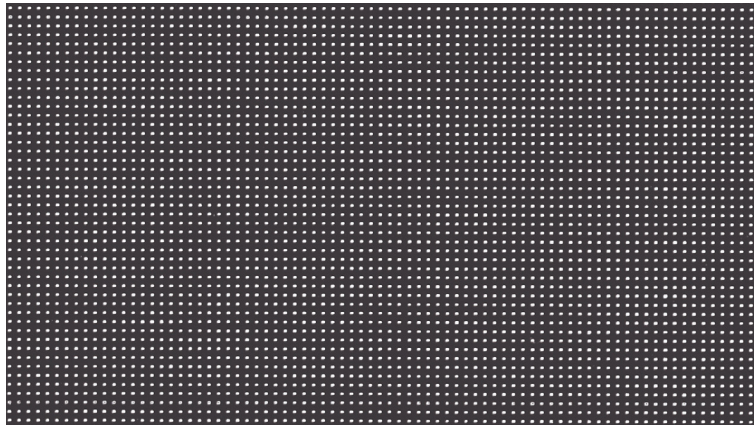


Colours		Subgroup	Colours		Subgroup
1	92-50690 Snow white	Colour	26	92-51182 Deep blue	Colour
2	92-2044 White	Colour	27	92-8255 Red	Colour
3	92-2175 Hemp	Colour	28	92-50273 Gold	Colour
4	92-2135 Sandy beige	Colour	29	92-50274 Copper	Colour
5	92-2012 Pepper	Colour	30	92-2045 Beaten metal	Colour
6	92-51180 Brick	Colour	31	92-2149 Beetle	Colour
7	92-2043 Bronze	Colour	32	92-51176 Deep black	Colour
8	92-50850 Taupe	Colour	33	92-2051 White/Alu	Alu
9	92-50303 Quartz	Colour	34	92-2046 Oat/Alu	Alu
10	92-50843 Shea	Colour	35	92-2048 Alu/Alu	Alu
11	92-50266 Havana-Brown	Colour	36	92-2074 Medium grey/Alu	Alu
12	92-50272 Cloud	Colour	37	92-2068 Anthracite/Alu	Alu
13	92-2171 Boulder	Colour	38	B92-1044 White/Alu	Opaque Alu
14	92-2167 Concrete	Colour	39	B92-2171 Boulder/Alu	Opaque Alu
15	92-51177 Dark grey	Colour	40	B92-2135 Sandy beige/Alu	Opaque Alu
16	92-51178 Celestial grey	Colour	41	B92-1046 Alu/Alu	Opaque Alu
17	92-2047 Anthracite	Colour	42	B92-1045 Beaten metal/Alu	Opaque Alu
18	92-2158 Moss green	Colour	43	B92-1043 Bronze/Alu	Opaque Alu
19	92-51179 Green-grey	Colour	44	B92-51176 Deep black/Alu	Opaque Alu
20	92-8056 Tennis green	Colour	45	B92-Verso	Opaque Alu
21	92-51181 Deep red	Colour			
22	92-2166 Buttercup	Colour			
23	92-2160 Lagoon	Colour			
24	92-8204 Orange	Colour			
25	92-2157 Aniseed	Colour			

• **Serge ferrari – Soltis 88**

**Properties**

Material:	Polyester weave with PVC coating
Light transmission:	8% openness factor
Weight:	0.36 g/m <sup>2</sup>
Thickness:	0.45 mm
Fire resistance:	B-s2,d0 (EN 13501-1:2007)



#### Colours

1	88-51178 celestial grey	Colour
2	88-50690 snow white	Colour
3	88-2044 white	Colour
4	88-2175 champagne	Colour
5	88-50265 hemp	Colour
6	88-2135 sandy beige	Colour
7	88-2012 pepper	Colour
8	88-51180 brick	Colour
9	88-2043 bronze	Colour
10	88-50850 taupe	Colour
11	88-51179 green grey	Colour
12	88-2171 boulder	Colour
13	88-2167 concrete	Colour
14	88-51177 dark grey	Colour
15	88-2047 Anthracite	Colour
16	88-51176 Deep black	Colour
17	88-2048 Alu/Alu	Alu

### 2.2.1. Window option

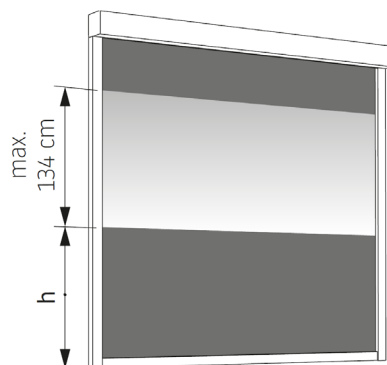
#### Properties

Material:	PVC
Transmission:	8% openness factor
Weight:	0.61 g/m <sup>2</sup>
Thickness:	0.5 mm
Temperature resistance:	0 °C/ +65 °C

The window foil has some natural properties that negatively affect the screen's behaviour. Temperature variations have significant effect on transparency, colour, flexibility, tackiness and dimensional expansion or contraction. In this way, it is also more susceptible to environmental pollution like smoke and dust.

#### • Confection option 1

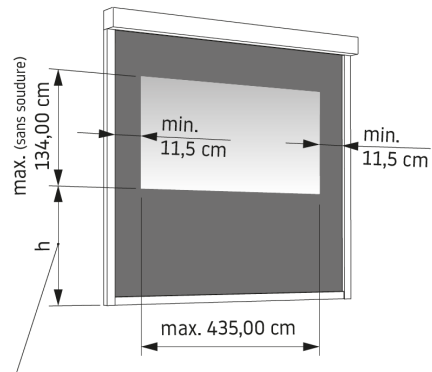
- **Only compatible with** Copaco - Serge 600
- **Max. screen size:** width 4 m x height 3 m



#### • Confection option 2

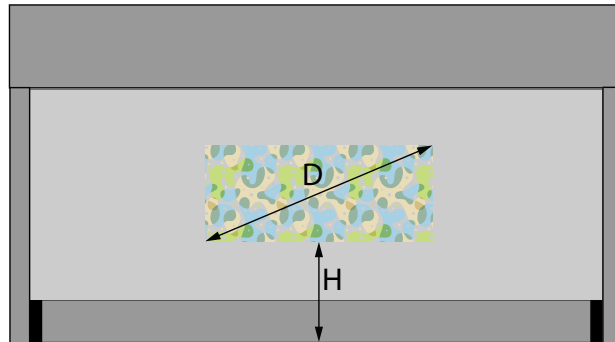


- **Only compatible with** Copaco – Serge 600
- **Max. screen size:** width 4 m x height 3 m



### 2.2.2. Print on fabric

- **Only compatible with** Copaco – Serge 600.
- On A or B side of fabric, must be specified.
- Size must be specified (diagonal and height).
- Print logo must be a vector file format (.EPS / .AI). Skylux is not responsible for its quality.



## 3. Installation options

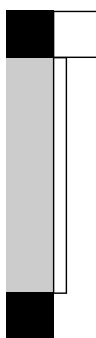
### 3.1. Installation situation

- Inside mount



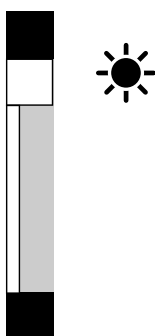
-In case of an **inside mount**, you should order your screen 2 mm shorter than the daylight width for easy installation.

- Outside mount

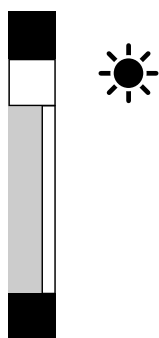


### 3.2. Installation orientation

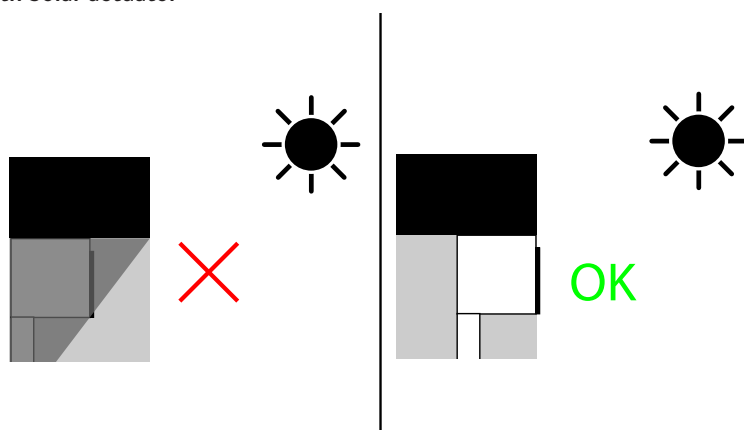
- Standard orientation



- Contra orientation

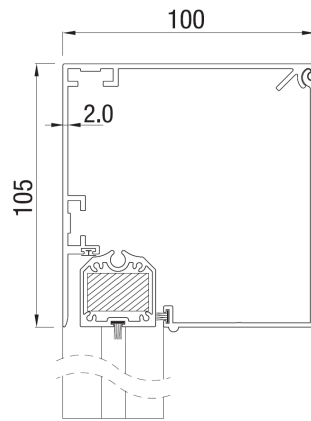


• Installation with Solar actuator

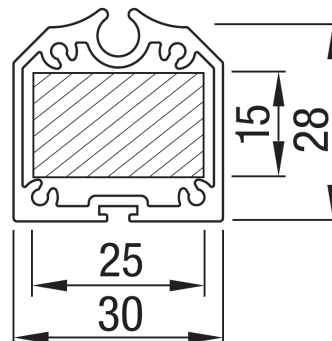




### Casing size

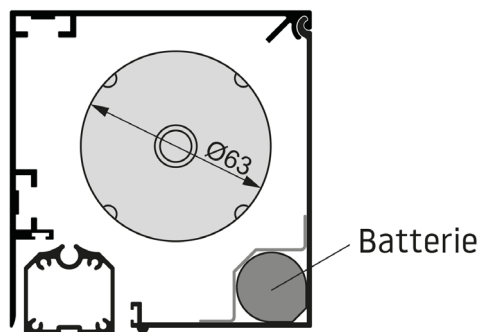


### Lead rail size



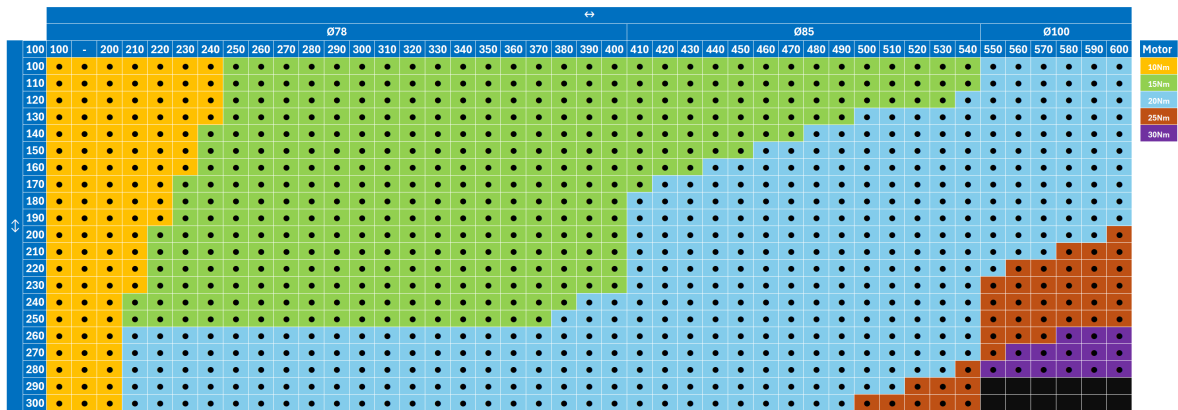
### Axiom 100 - Solar

- The solar panel is attached to the cover of the casing, on the same side as the actuator.
- **Size limitation:** max. screen width 3.5 m and height 2.8 m (limited actuator torque).



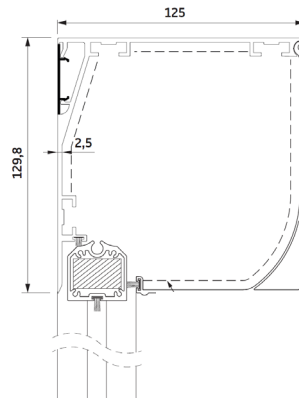
## 4.3.2. Axiom 130

### Screen size



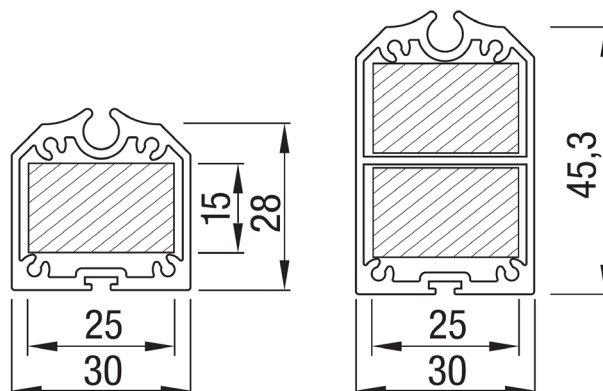
- **Not compatible** for a screen over a height of 2200 mm and with a Ø 100 screen tube, it is not possible to have a fabric with a window.

### Casing size



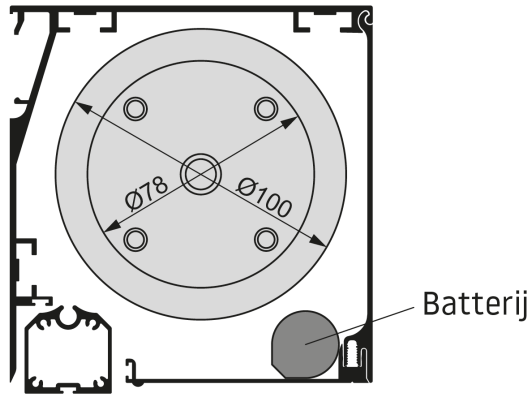
### Lead rail size

- Small lead rail up to width 4 m.
- Large lead rail up to width 6 m.

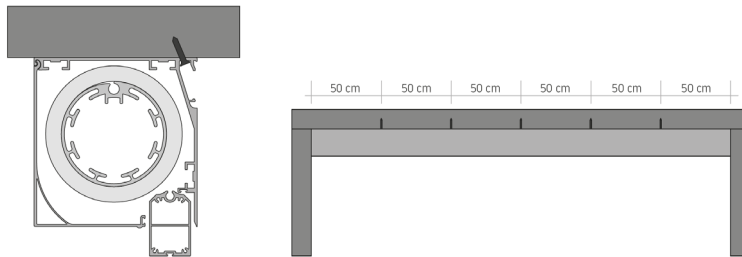


### Axiom 130 - Solar

- The solar pannel is attached to the cover of the casing, on the same side as the actuator.
- **Size limitation:** maximum screen width 2.4 m and height 3.0 m (limited actuator torque).



**Casing fixation**

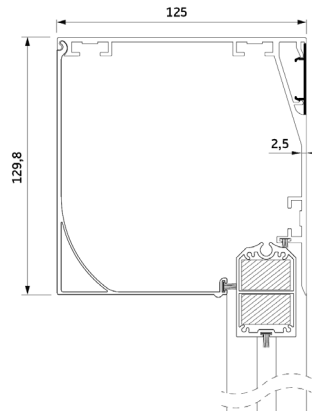


**4.3.3. Axiom 130 XL**

**Screen size**

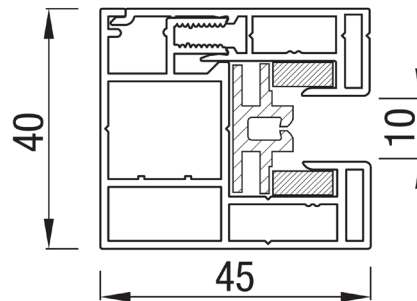
		↔											
		Ø100											
	↕	100	610	620	630	640	650	660	670	680	690	700	Motor
	100	•	•	•	•	•	•	•	•	•	•	•	25Nm
	-	•	•	•	•	•	•	•	•	•	•	•	30Nm
	190	•	•	•	•	•	•	•	•	•	•	•	
	200	•	•	•	•	•	•	•	•	•	•	•	
	210	•	•	•	•	•	•	•	•	•	•	•	
	220	•	•	•	•	•	•	•	•	•	•	•	
	230	•	•	•	•	•	•	•	•	•	•	•	
	240	•	•	•	•	•	•	•	•	•	•	•	
	-	•	•	•	•	•	•	•	•	•	•	•	
	280	•	•	•	•	•	•	•	•	•	•	•	

## Casing size

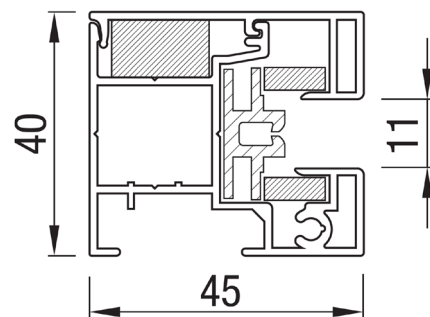


## 4.4. Screen guides

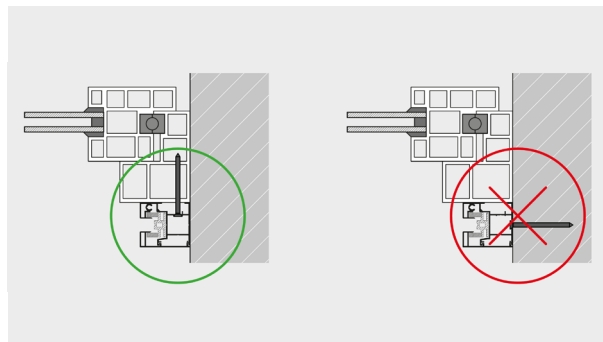
- Standard guide



- Click guide
  - **Not compatible** with casing Axiom 130XL.

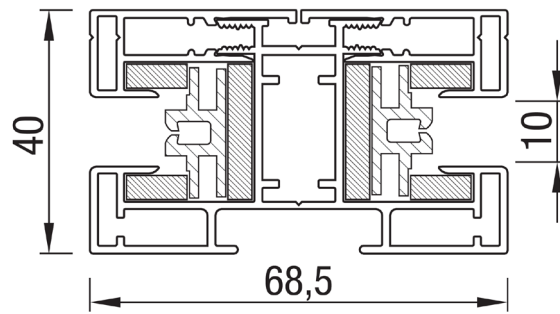


- **Not compatible** with inside mount (installation in the daylight size).



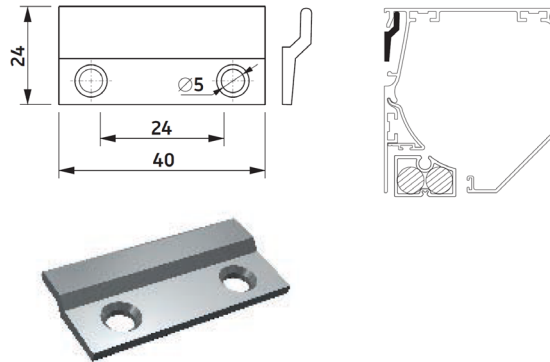
- Coupled guide
  - **Not compatible** with casing Axiom 130XL.
  - **When ordering:** one screen is ordered with the double sided guide on the appropriate side, the other screen without a guide at the correlating side.



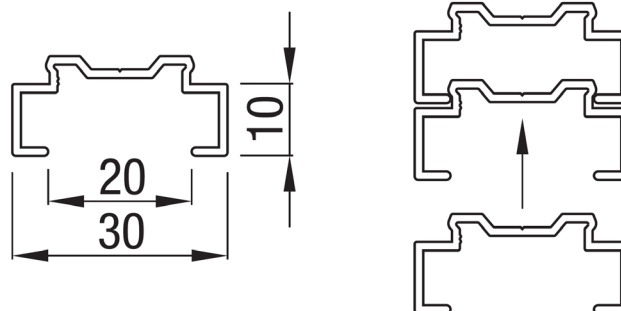


## 4.5. Installation brackets

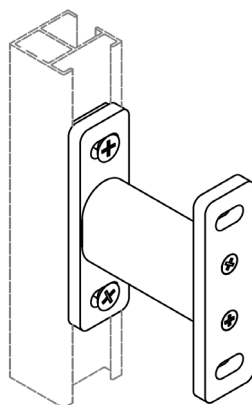
- **Casing bracket**
  - These are optional.
  - **Not compatible** with casing Axiom 130XL.
- Number of brackets:
  - W < 2490 mm = 2 brackets
  - W < 2500 mm = 3 brackets
  - W > 3500 mm = 4 brackets
  - W > 4500 mm = 5 brackets
  - W > 5500 mm = 6 brackets



- **Guide spacer profile**
  - Profiles need to be screwed together when more than 3 are stacked.
  - **Not compatible** with casing Axiom 130XL and standard guide.



- **Guide spacer bracket**
  - 2 pieces per guide included.
  - **Not compatible** with casing Axiom 130XL and standard guide.



## 4.6. Actuator

### 4.6.1. Type

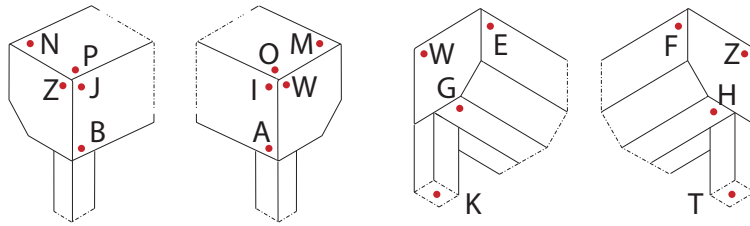
- **230 V actuator Somfy Sunilus io**
  - Remote controlled actuator over the Somfy io protocol.
  - Compatible with all solar and wind sensors on the io protocol.
  - Endpoints, top and bottom, need to be programmed during the screen installation and are fixed.
  - A favourite position can be programmed.
  - Actuator cable is white, length 5 m.
- **230 V actuator Somfy Maestria io**
  - Remote controlled actuator over the Somfy io protocol.
  - Compatible with all solar and wind sensors on the io protocol.
  - Only bottom endpoint needs to be programmed during the screen installation. The actuator each time actively recognises the top position thanks to its obstacle detection and therefore also ensures fabric stretching. There is also a back release after recognising the endpoint, preventing that the fabric is under tension in its rolled up position.
  - A favourite position can be programmed.
  - This actuator has obstacle detection.
  - Actuator cable is white, length 5 m.
- **Actuator Somfy RS100 IO Solar**
  - Remote controlled actuator over the Somfy io protocol.
  - Not compatible with wind and rain sensors.
  - Not compatible with Axiom 130XL (actuator power is too limited).
  - Will be displayed in the Somfy Tahoma app as a roller shutter and not as sun protection.
  - Uses 2 different batteries depending on the torque of the actuator:
    - 6-10 Nm: 9.6V battery
    - 15-20 Nm: 16.8V battery



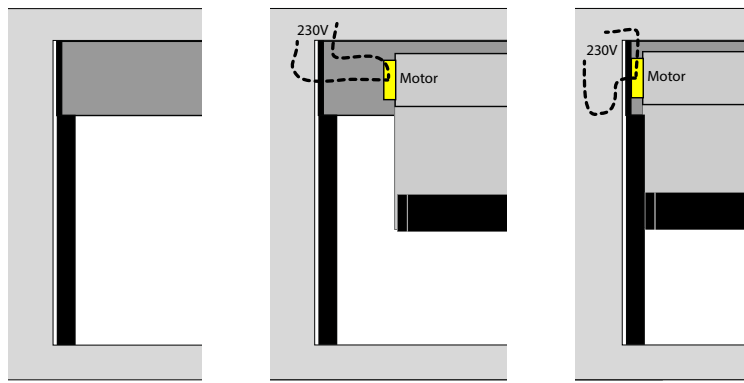
### 4.6.2. Installation

#### Operating side (actuator cable exit)

- The Solar actuator (Somfy RS100 IO Solar) does not require a cable exit.



- **Please note:** for the installation in case of an inside mount (installation in the daylight size) in combination with an actuator cable exit through the side or top. It may be necessary to first install the empty screen casing and guides. And after that, the cable is pulled through during the installation of the roller tube so that the actuator cable passage is not blocked by the surrounding structure.



## 4.7. Remotes

One remote is required to operate one or multiple screens.

- **Somfy Situo 1 io pure II**
  - Handheld remote with 1 channel that can operate 1 device or 1 group of devices.
  - The remote has a MY button to set the device to a pre-programmed favourite position.
  - One-way remote (no feedback).
  - Includes a wall hook with self-adhesive side.



- **Somfy Situo 5 io pure II**
  - Handheld remote with 5 channels that can operate 5 devices or 5 groups of devices.
  - Remote has a MY button to set the device to a pre-programmed favourite position.
  - One-way remote (no feedback).
  - Includes a wall hook with self-adhesive side.



- **Somfy Smoove origin 1 io**
  - Wall-attached wireless remote with 1 channel, self-adhesive.
  - One-way remote (no feedback).
  - Works on batteries.
  - 20 m reach trough 2 stone walls.



- **Somfy Smoove origin 4 io**
  - Wall-attached wireless remote with 4 channels, self-adhesive.
  - One-way remote (no feedback).
  - Works on batteries.
  - 20 m reach trough 2 stone walls.



- **Somfy Tahoma switch**
  - Somfy home automation hub to operate Somfy and other compatible hubs.
  - Devices can be operated from any location by smartphone.



## 4.8. Sensors

Sensors are optional for automating certain functions.

- **Somfy Sunis WireFree io**



- **Somfy Eolis WireFree io**

- Works on batteries, batteries included in the delivery.
- Wind speed limit setting can be read on its display and set with a Situo remote.



- **Somfy Soliris 230 V io**

- Requires wiring to the 230 V power grid.
- Solar and wind sensor.
- Compatible with the Oneidis rain sensor.
- Not compatible with Nina or TaHoma switch.



- **Somfy Soliris 230 V io + Somfy Ondeis 230 V AC**
  - Requires to be wired to the 230 V power grid.
  - The Ondeis cannot work independently and is wired to the Soliris.
  - Not compatible with Nina or TaHoma switch.

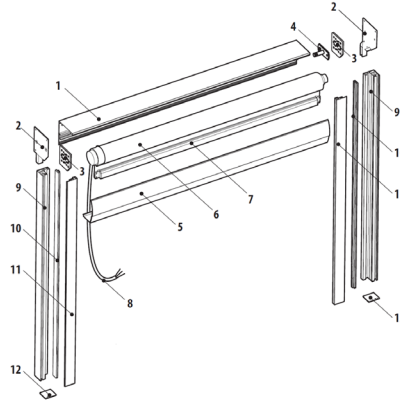


# 5. Element range

## 5.1. Description

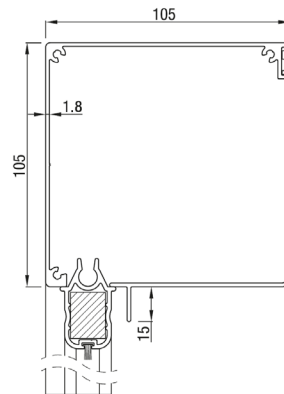
The Element screen range is distinguished by its narrow guides and lead rail, perfect for smaller but common screens.

## 5.2. General exploded view

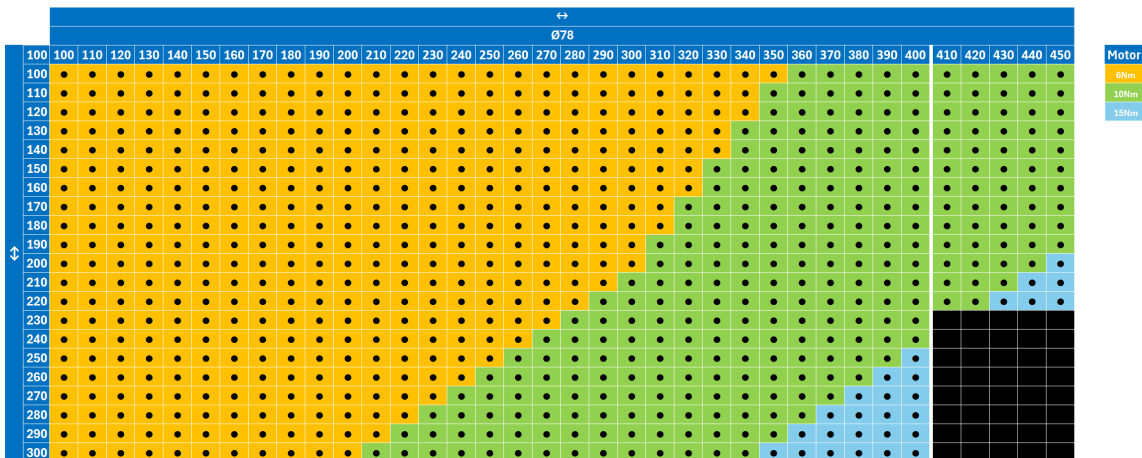


## 5.3. Casing Element 105

Casing size



Screens size

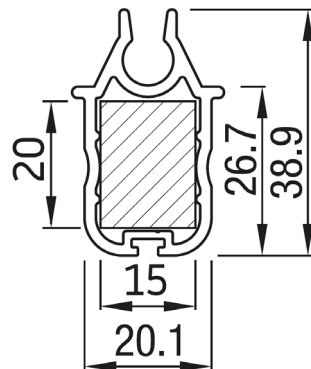


- To prevent substantial casing deflection for screens wider than 4000 mm, a screw must be drilled into the ceiling to hold it up.

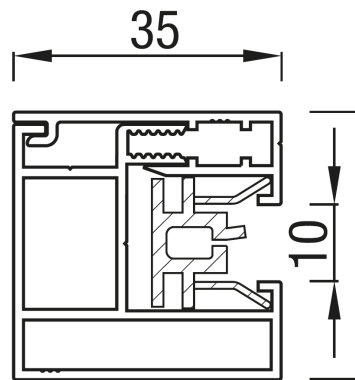
### Solar integration

- The solar panel is attached to the cover of the casing, on the same side as the actuator.

## Lead rail size



## 5.4. Screen guide



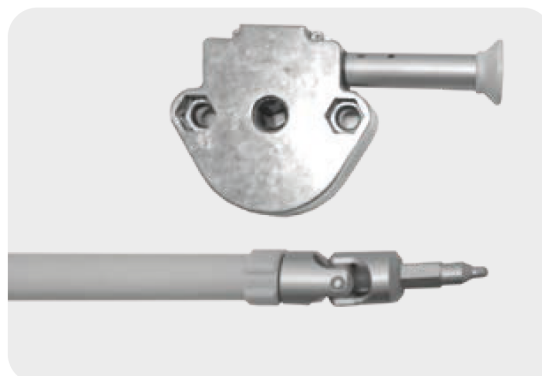
## 5.5. Manually operated

### Operation system

- System Click
- **Size limitation:** screen max. 4 m wide

### Hand crank length

- **Length:** 1200 mm / 1400 mm / 1600 mm / 1800 mm





## 5.6. Actuator

### 5.6.1. Type

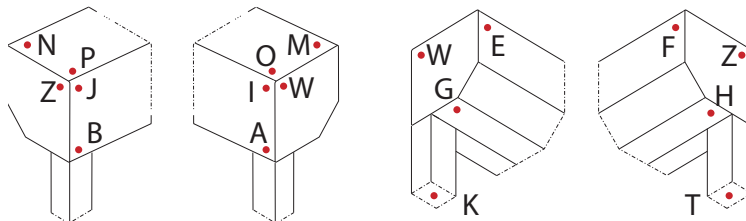
- **Faher actuator**
  - ARRAS RTF Bi-Directional
  - Actuator cable is white, length 5 m.
- **Faher Solar actuator**
  - FAHER SOLAR RADIO Bi-Directional
  - The battery (12 V) of the Faher Solar actuator is integrated in the actuator.
  - The actuator is programmed with the bi-directional remote.
  - The solar panel must be directed towards the sun to keep the battery charged.



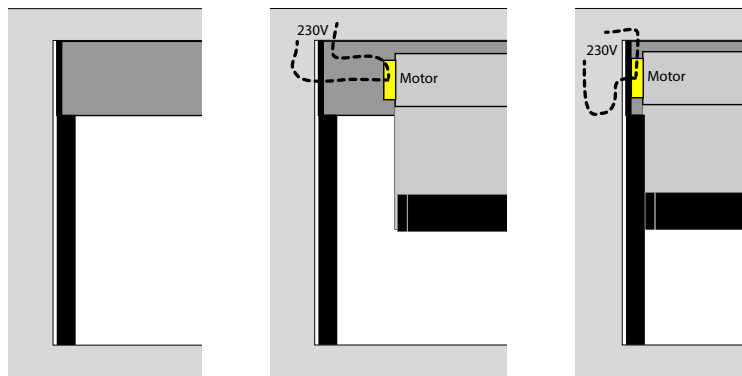
### 5.6.2. Installation

#### Operating side (actuator cable exit)

- Solar actuators do not require a cable exit.



- **Please note:** for the installation in case of an inside mount (installation in the daylight size) in combination with an actuator cable exit through the side or top. It may be necessary to first install the empty screen casing and guides. And after that, the cable is pulled through during the installation of the roller tube so that the actuator cable passage is not blocked by the surrounding structure.



## 5.7. Remotes

Faher 1 channel



Faher 5 channel



## 6. Universal adapter profiles

### 6.1. Application

#### 6.1.1. Function

The adapter profiles are an installation option for all screens.

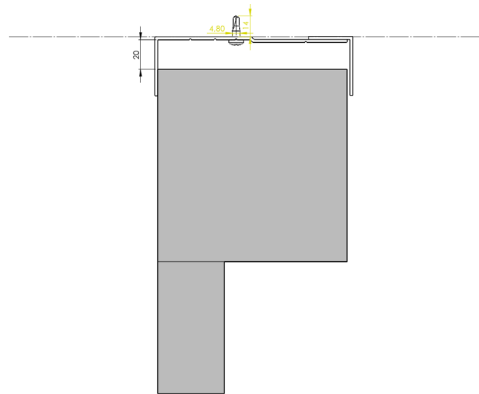
The adapter profiles allow for a 20 mm void underneath structural elements of the canopy. They serve as buffers, absorbing deflection under load so that the screen's function is not affected.

This deflection is variable, affected by multiple factors, some of which are only present in extreme yet possible circumstances.

The adapter profiles cover the 20 mm void on each side.

#### 6.1.2. Adapter set

- **Profile VPL1342:** the profile features guiding grooves as cutting lines, allowing adjustments to fit the screen casing size.
- **Profile VPL432:** finishing profile.
- **Self-drilling screws 4.8x16:** to attach VPL1342 against the element.



## 6.2. Canopy load conditions

Each canopy in its unique configuration has to account for multiple factors:

- Sheet weight (glass type and thickness / sandwich pannels / ...)
- Maximum snow conditions:
  - specific load value for the applicable geographic region
  - with/without accounting for extra snow fall caused by adjacent constructions
  - with/without accounting for snowdrift caused by adjacent constructions
- Width of the veranda
- Depth of the veranda
- Number of rafters
- Span lengths
- Wind loads, both horizontal and vertical on the roof and possible side walls
- Allowable deflection of the carrying profiles (rafters, gutters, etc.) with maximum loads

During construction, under applied load conditions, a permissible deflection limit is established for each structural element (normally ranging from 1/300 to 1/150). This limit is influenced by various factors (safety, guarantee, sheet types, aesthetics, etc.).

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