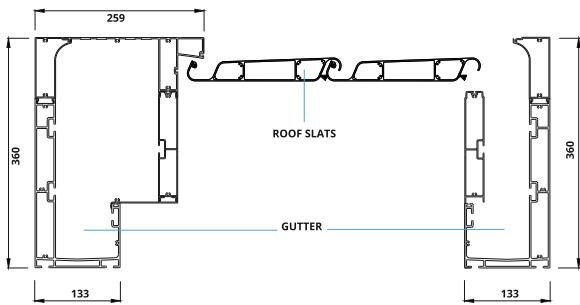
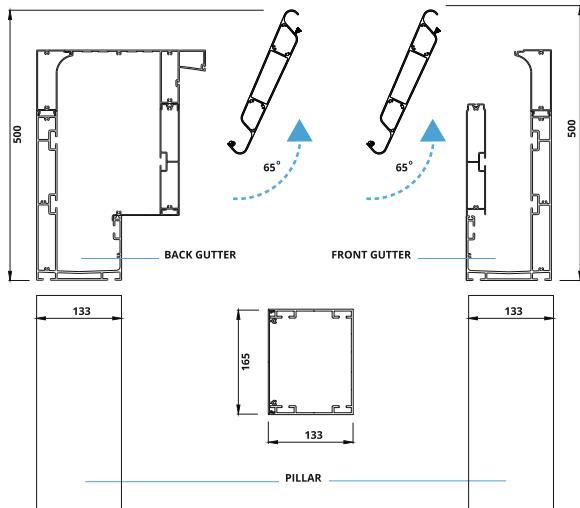


SKY**free**

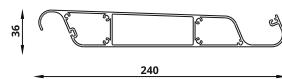
Close Position



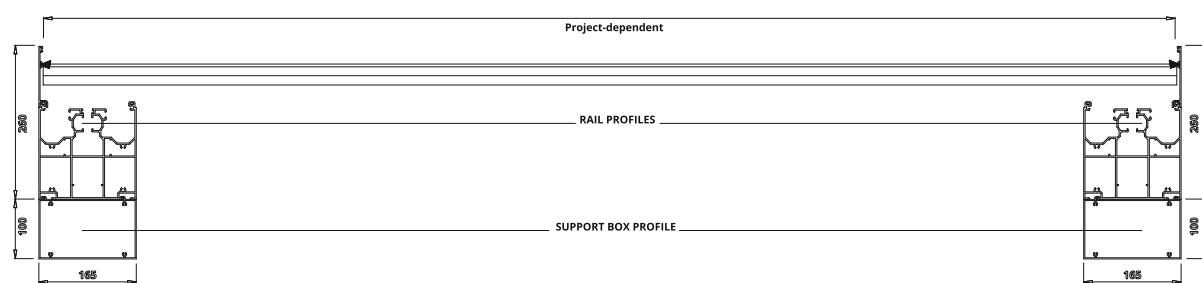
Open Position



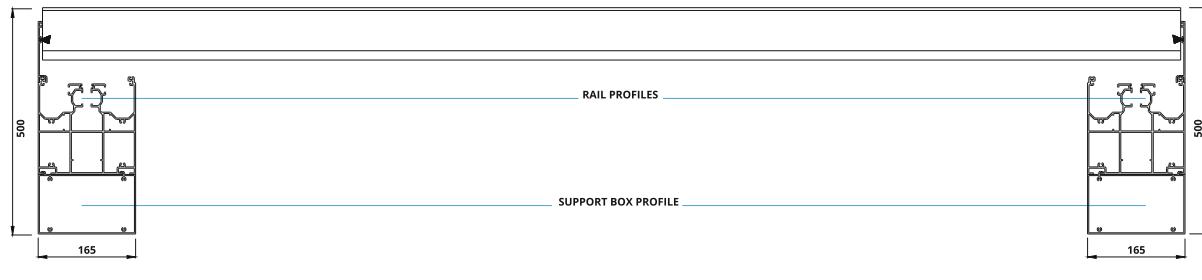
Roof Slats Cross-Section



Close Position



Open Position

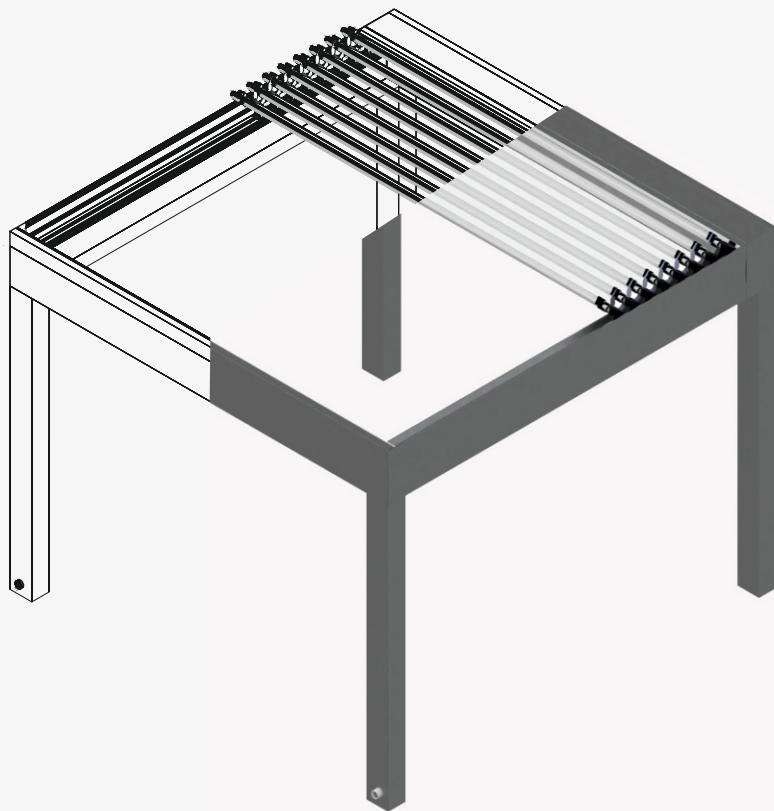


TECHNICAL DATASHEET

DOCUMENTS

• TECHNICAL • DETAILS

• PRESENTATION



PARTS

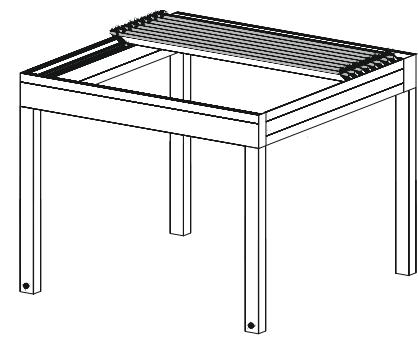


MATERIAL



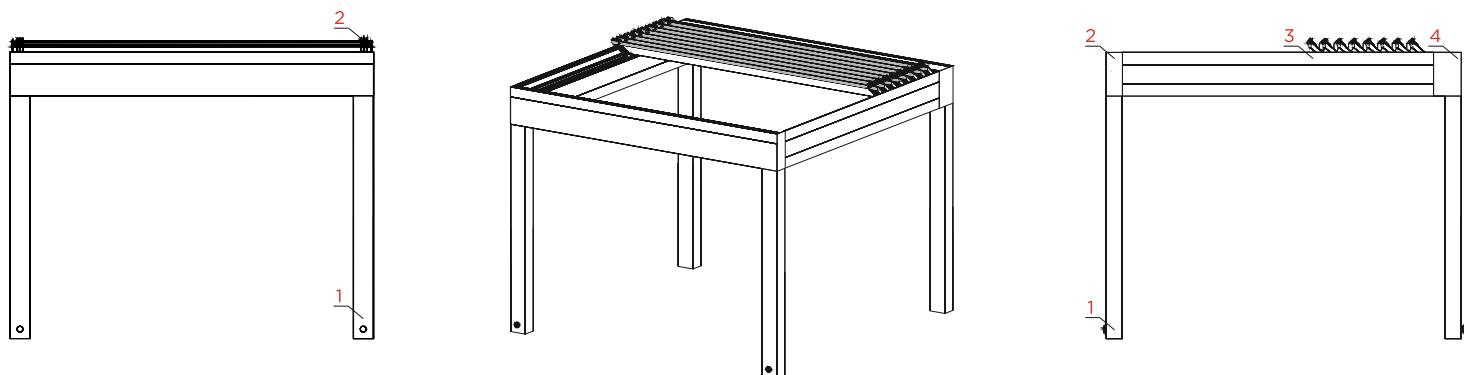
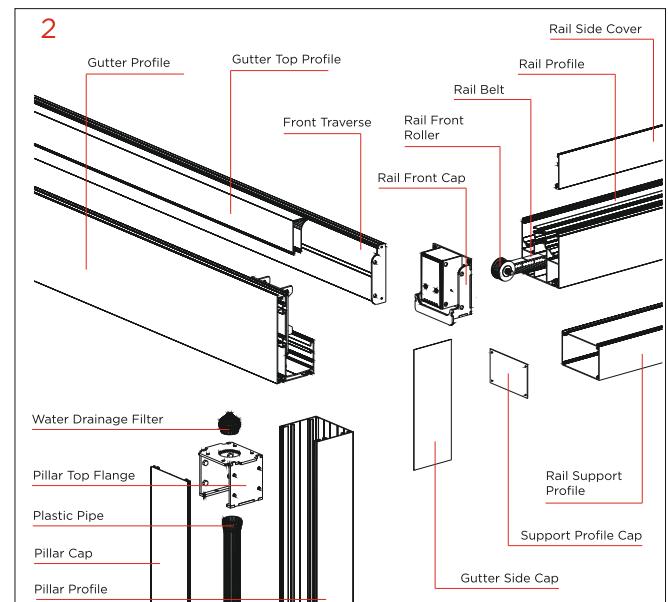
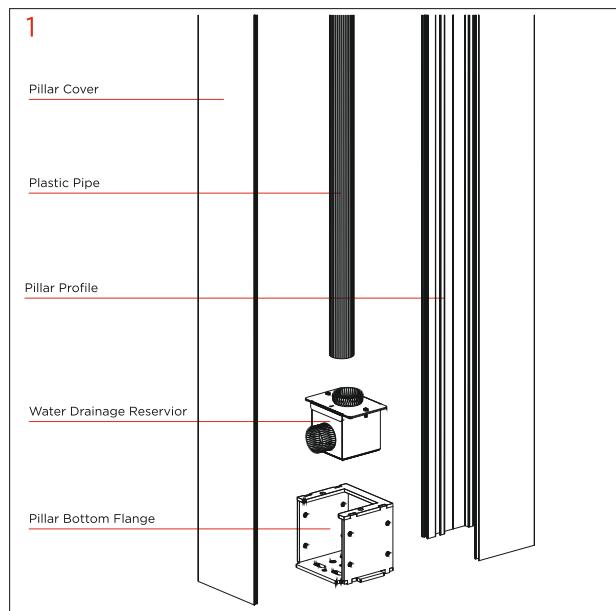
CERTIFICATES

I. Description of the product and features

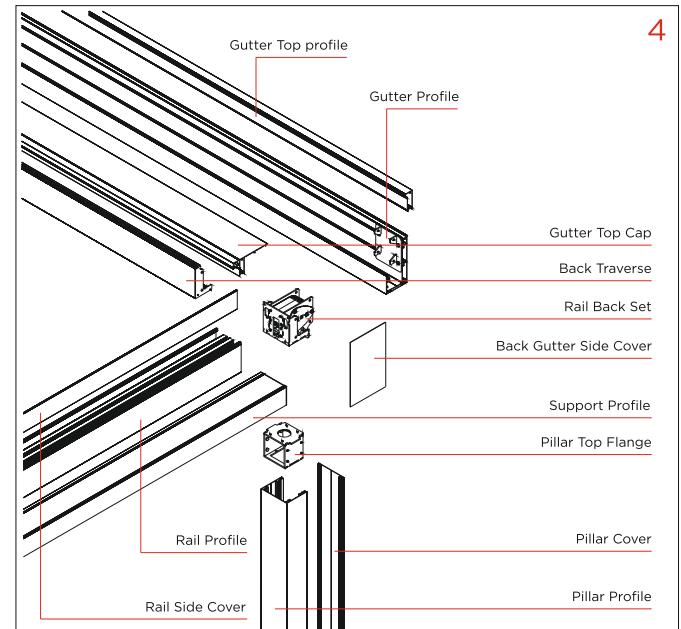
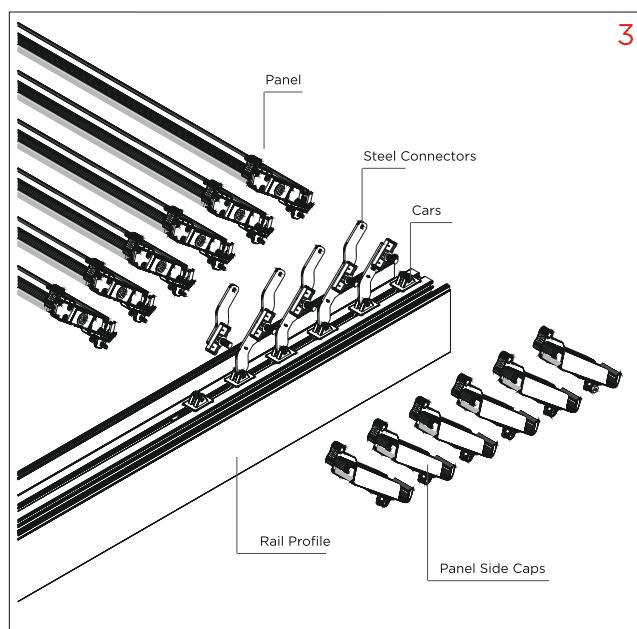


- a.** SkyFree is a first class product designed to be used with confidence and comfort in all four seasons.
- b.** SkyFree offers a usage opportunity where the ceiling area can be opened completely and closed completely when desired.
- c.** SkyFree consists of fully back-to-back panels made of aluminum, which are mounted on an aluminum construction carrier body modularly.
- d.** SkyFree Ceiling Panels make the retracting movement to reach an angle of 65 degrees to the final assembly point. The mechanism that enables the assembly movement is created by using first class and extremely long-lasting materials such as bearings integrated on the Stainless Steel Body, high-quality copper alloy bushings and bolts, UV-resistant ABS plastics.
- e.** The "Tensioned Scissor System", which provides the movement, has been developed to make a unique silence, smooth gather-closure movement smoothly for years. The "Torsion Nut" used in the system ensures that the connections are provided perfectly without requiring any special adjustment.
- f.** Various types of heat and UV protected rubber gaskets and Brush Insulation Wicks are used in all of the SkyFree panel and construction combinations. These seals prevent water and air passage; perfects the performance of the product with the understanding of "4 Seasons Comfort".
- g.** The system has been designed in accordance with the customer's request for the assembly of complementary products such as curtains, glass systems, doors, sensors.
- h.** The system makes the water it collects through "GUTTER" and "DISCHARGE" profiles integrated into the system. The PVC pipes used in the drain posts ensure that the water is thrown out in the fastest and quietest way. The values regarding the water discharge capacity are given below with a detailed table (**Check: Static Calculation Tables**)
- i.** SkyFree's resistance to wind loads is given in a detailed table below.
(**Check: Static Calculation Tables**)
- j.** SkyFree's resistance to snow loads is given in a detailed table below.
(**Check: Static Calculation Tables**)

II. Connection Points Details



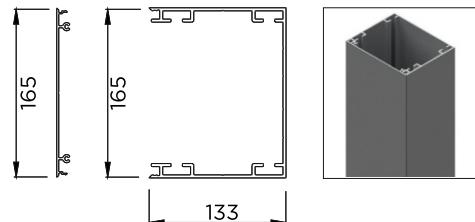
1. Pillar-Ground 2. Front Pillar-Rail-Gutter 3. Panel-Rail 4. Back Pillar-Rail



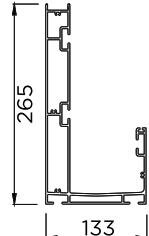
III. Aluminum profiles, sections and properties

Sunset guarantees that all aluminum profiles used in its products are of **DIN6060**, **DIN6061** and **DIN6062** quality, depending on where they are used.

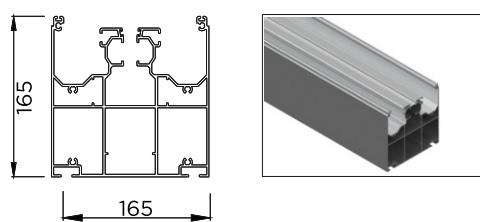
Pillar
Profile
and
Cap



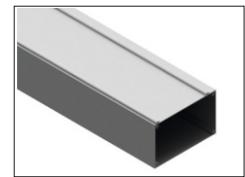
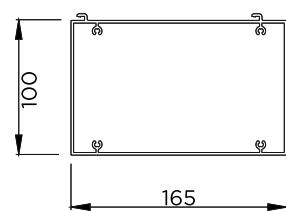
Gutter
Profile



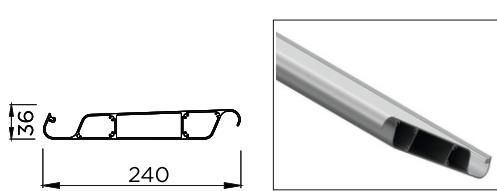
Rail
Profile



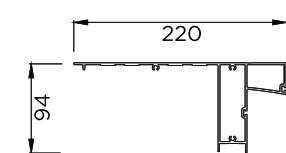
Box
Profile



Panel
Profile

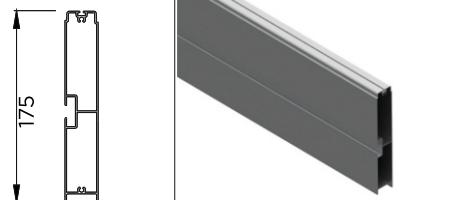


Back
Gutter
Cap

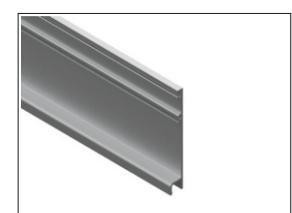
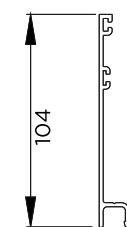


Panel

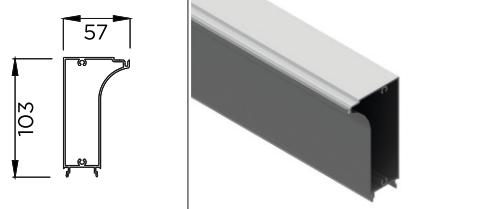
Traverse
Profile



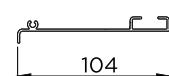
Rail
Side
Cap



Gutter
Top
Profile



Back
Traverse
Support
Profile



Chemical Compositions - EN573-3 (EN - AW %)

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other		Al
									Each	Total	
6060	0,30-0,60	0,10-0,30	0,10	0,10	0,35-0,60	0,05	0,15	0,10	0,05	0,15	Total

Mechanical Properties EN 755-2

Alloy	Temper	Wall Thickness e mm*	Tensile Strength Rm Mpa min	Test Resistance R _{p0,2} Mpa min	Elongation		Brinell Hardness HB**
					A50mm % min	A % min	
EN - AW 6060	T4	e ≤ 25	120	60	14	16	45
	T5	e ≤ 5	160	120	6	8	55
	T6	e ≤ 3	190	150	6	8	65
		3 < e ≤ 25	170	140	6	8	60
	T66	e ≤ 3	215	160	6	8	70
		3 < e ≤ 25	195	150	6	8	65

Physical Properties	
Alloy EN - AW	6060
Metallic Range °C	585-650
Density g/cm ³	2,70
Electrical Conductivity MS/m	34-38
Thermal Cond. W/(m K)	200-220
Essence J/(Kg K)	898
Thermal expansion values	
-50 to 20 °C (10 ⁻⁶ K)	21,8
20 to 100 °C (10 ⁻⁶ K)	23,4
20 to 200 °C (10 ⁻⁶ K)	24,5
20 to 300 °C (10 ⁻⁶ K)	25,6
Elasticity Coefficient Mpa	69500
Shear Coefficient Mpa	26100

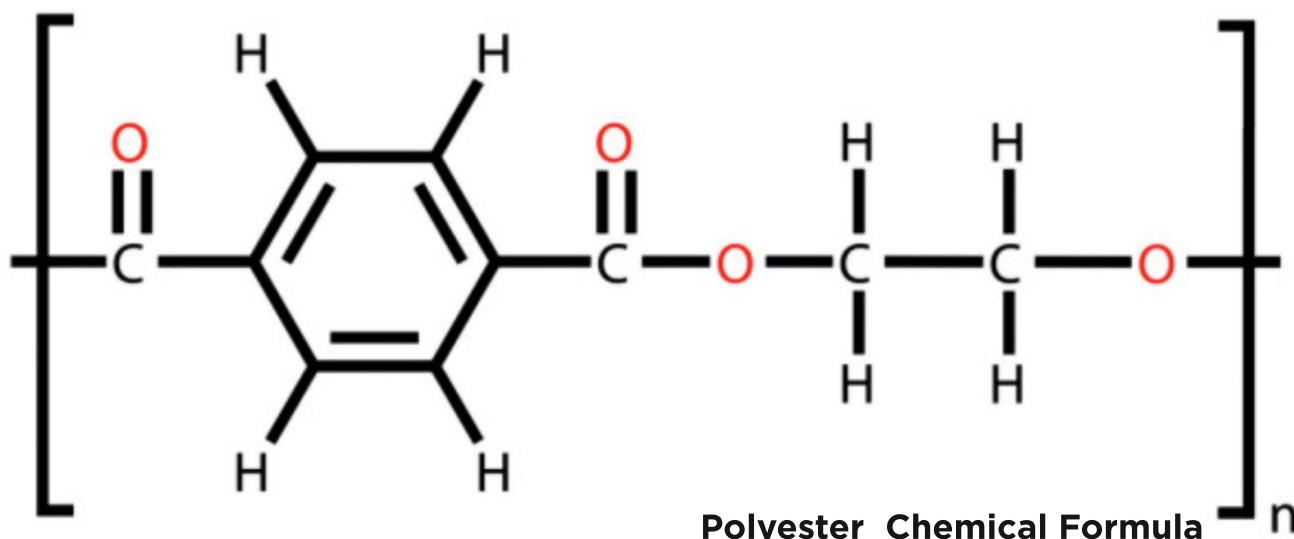
IV. Powder coating and Process properties

Sunset gives a 5-year paint warranty for its powder coated products. All aluminum and steel materials used in Sunset products are manufactured by painting with PE Electrostatic Powder Paint. Sunset is a manufacturer company that has chemical purification and abrasion facilities, which are an important part of the powder coating process. Sunset, uses on all products, Europe and Turkey's finest manufacturers Powder JOTA's, PULVE and IBA brand's 1.Quality Polyester Powder Coating. Sunset paint quality complies with QUALICOAT standards. Every project produced in the Sunset factory goes through a quality control process based on the experiment and observation staff determined by QUALICOAT. A special "Quality Certificate" is prepared for each order and delivered to our customers. Sunset delivers to its customers test plates and test reports showing that these tests have been performed together with the products.

Test Standards :

Within the QUALICOAT admissions, all tests listed below must be passed:

- **Adhesion Test (EN ISO 2409)**
- **Bending Test (EN ISO 1519)**
- **Impact Test (ASTM D2794)**
- **Cupping Test (EN ISO 1520)**
- **Surface Treatment Baths**
 - There are 5 5m³ bathrooms
 - Acidic degreasing
 - Mains rinse
 - DI rinse
 - Passivation Bath
 - DI rinse



V. Tension / Drive Belt

SkyFree provides the movement it takes from the Tubular-based engine to aluminum panels with ELATEC (Italy), the world's number 1 manufacturer, with 16mm drive belts. Tension belts are in "HIDDEN" and "PROTECTED" condition within the Rail Profiles. Invisible from the outside and the system The drive belt and system, which is an important movement system part, are guaranteed for 7 years.

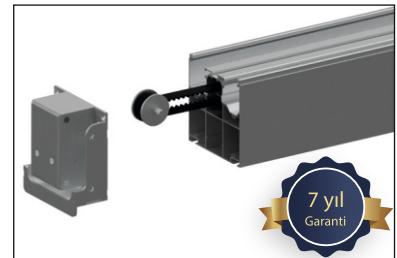
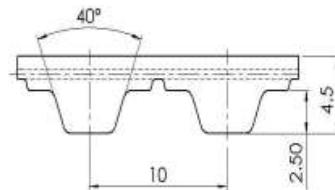
Belt Product Specification

16 TT10

Profile TT10

Width 16

Cord Galvanized Steel



Dimensional characteristics

Width	16	± 0.5 [mm]
Thickness	4.5	± 0.2 [mm]
Length		± 0.5 [mm/m]
Measuring Preload	28,6	[N]
Weight	0,05	[Kg/m]

Material characteristics

TPU 92 Sh.A

Colour

WHITE

Tension member

Diameter 0,63
n. 11

Technical characteristics

Allowable Tensile load Type M [N]: 1265
Allowable Tensile load Type V [N]: 632,5
Breaking load FBr [N]: 4620
Specific spring rate Cspez [N]: 316250

Flexibility

Drive without reverse bending Z_min 12
d_min Ildler 60 [mm]

Drive with reverse bending Z_min 20
d_min Ildler 60 [mm]

Working Temperature range

-10 \div +80 $^{\circ}$ C

Branding



Elatech ® - 16TT10A - batch nbr - Made in Italy

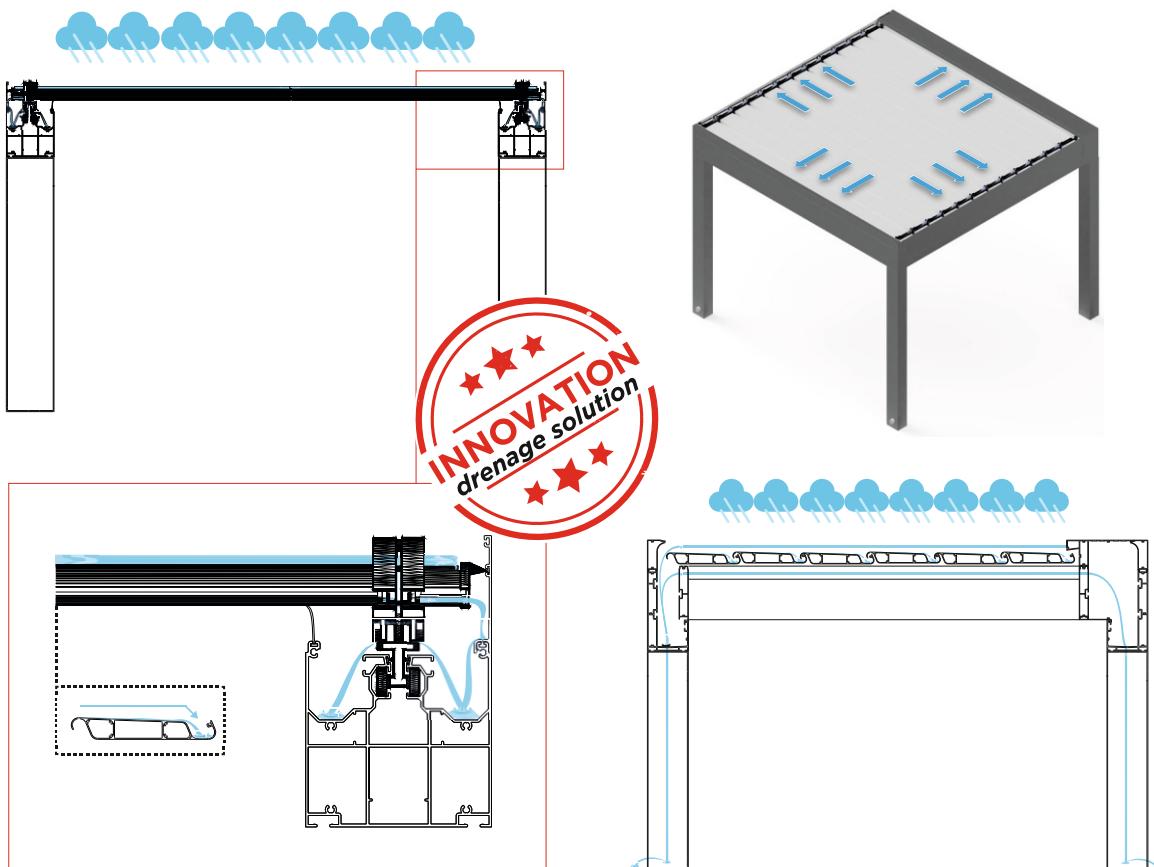
VI Carriages Standards

Sunset uses the highest quality principles in PVC cars and carriers, which are important parts of the movement system. In addition to the body made of ABS-added high-strength Polyester, the carrier wheels are made of DERLIN, which is not affected by liquid and dust and does not require lubrication. BRASS and / or STAINLESS steel bushings, screws and bolts are used at all connection points. Main Carrier Trolleys are "6", Secondary Carrier Trolleys are "4" wheels. Compression and conveying surface area and number make the system's fluidity perfect



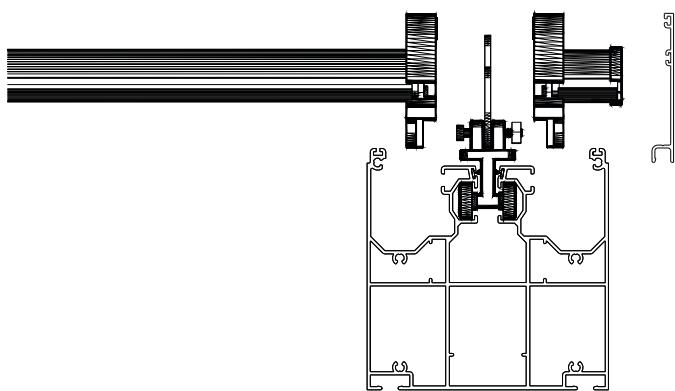
VI Water Drainage System

SkyFree provides the fastest and quietest discharge of the water accumulated on it, as detailed below. Water discharge capacity is 0.98 liters per second for each pillar. This value guarantees problem-free use of the product in all precipitation conditions, except in disaster situations.

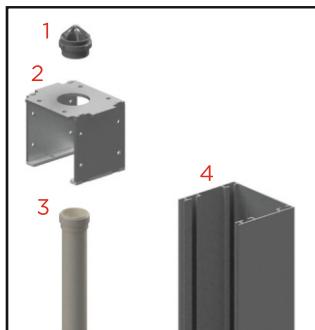
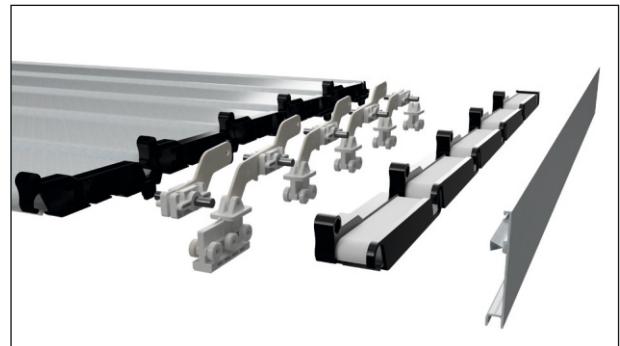


The design patent for the above-mentioned special solutions is SUNSET TENTE DEKORASYON A.Ş. belongs.

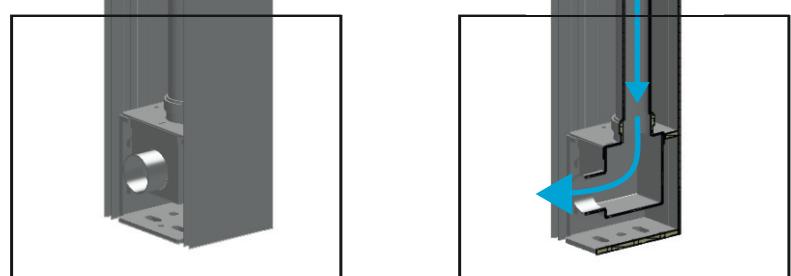
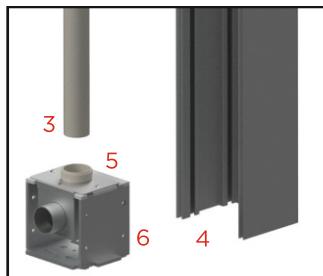
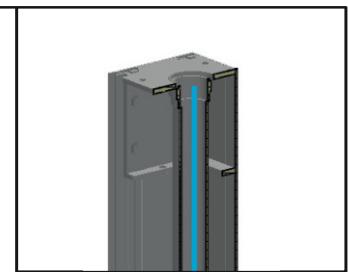
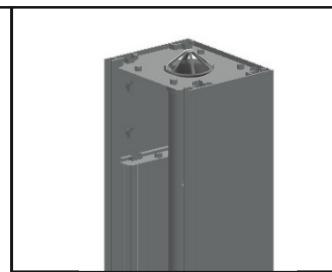




In the exploded section view on the side, you can see the rail-panel junction details. In the cars on the rail, the continuity of the panels is broken. With this type of technical design solution, the flow of water moving towards the rails on the panel is interrupted at the top of the carriages and the water is prevented from flowing out of the sides of the system. From the junction point of the panel and panel side covers on the car, the water moves towards the dead on the rails and is directed to the required drainage channel.



1. Filter
2. Top Flange
3. Plastic Pipe
4. Pillar Profile
5. Drainage Reservoir
6. Bottom Flange



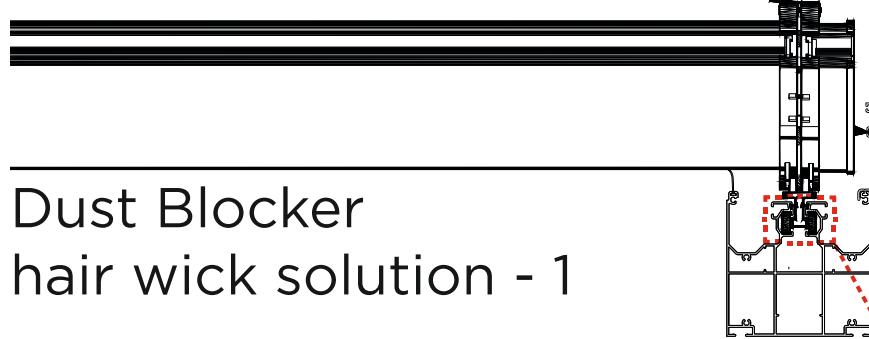
The water, which is included in the drainage path shown on the previous page, is transferred to the front and rear struts of the system at the last stage. The water passing through the filter is transferred to the water reservoir mounted on the lower flange, including the lower pimas pipe. And it is evacuated from here. The column drain system with a diameter of 50 mm has a drainage capacity of 0.98 l / s.

The design patent for the above-mentioned special solutions is SUNSET TENTE DEKORASYON A.Ş. belongs.

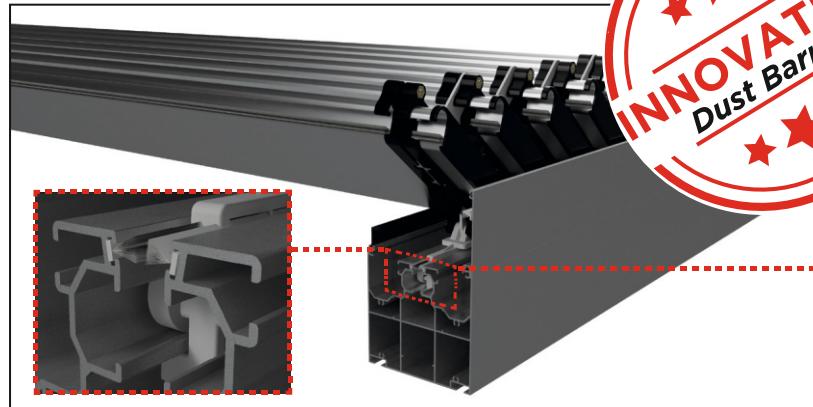
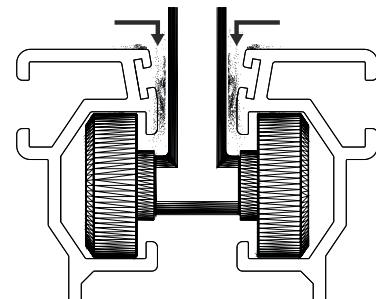


VII Dust Blocking Solution

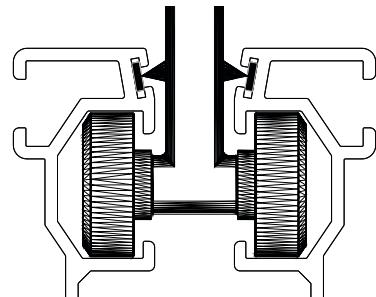
Dust Blocker hair wick solution - 1



With the hair wick



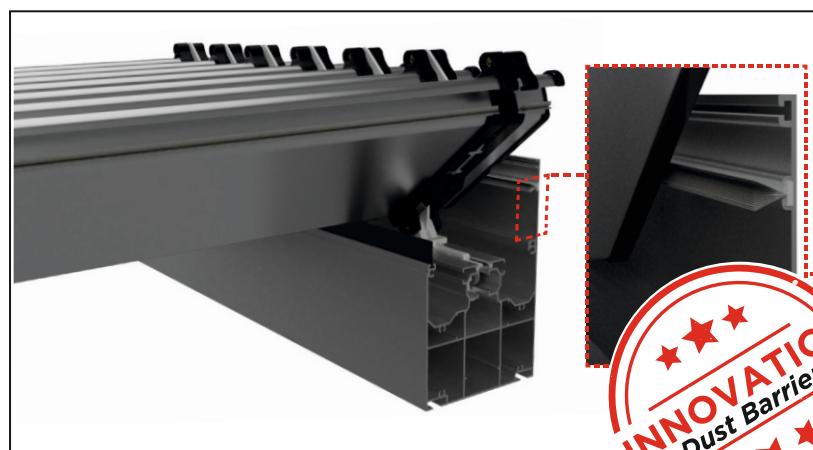
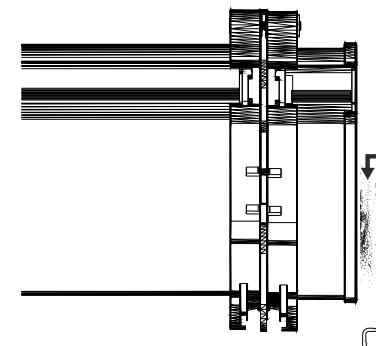
Without the hair wick



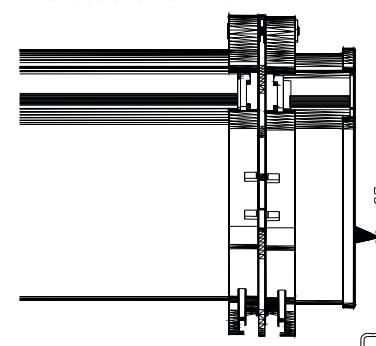
Dust Blocker hair wick solution - 2



With the hair wick



Without the hair wick



The design patent for the above-mentioned special solutions is SUNSET TENTE DEKORASYON A.Ş. belongs.

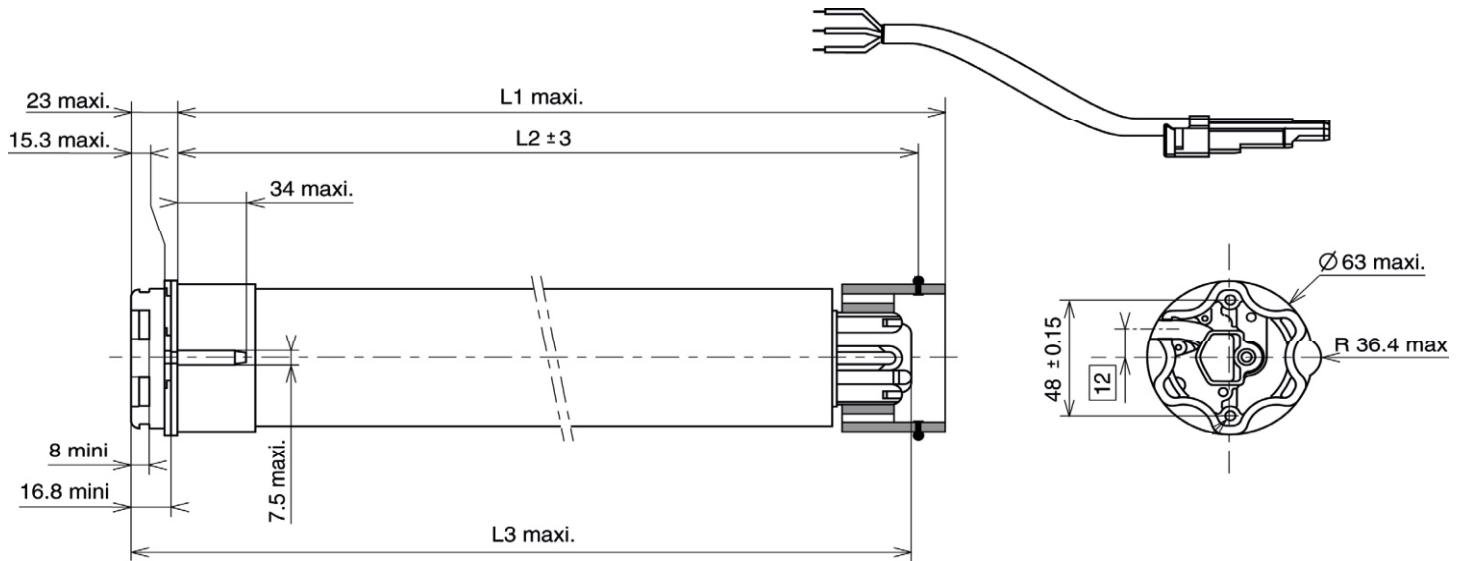


VIII Motor ve Remote Control

Movement must be provided for each product with one 85/17 Somfy Altus Motor. The motor is also controlled by Somfy RTS Telis Remote Control.



Somfy Motor Section View



Somfy Motor Technical Specifications

Type of head	Star Head
Nominal voltage	230 V 50 Hz
Power supply tolerances	207 - 253 V AC
Thermal time	4 minutes
Number of wires of the cable	3
Wire section	0,75 mm ²
Type of limit switch unit	Electronic
Capacity of the LSU	200 turns
Repeatability	< ± 3°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Radio frequency	433,42 MHz
Coding	Rolling code 16million of possibilities
Capacity of memory	12 different transmitters plus 3 wireless sensors
Antenna	Integrated
Range	20 m with 2 reinforced concrete walls to be passed through
R&TTE (Radio Equipment and Telecommunications Directive)	Dir 1999/5/CE
Safety Security	EN 60335 - 2 - 97
Electromagnetic compatibility	EN 301489 - 3
Radio frequency	EN 300 - 220 - 3
Application	
Principle	
Basic crown for tube Ø	63 x 1,5 mm
Temperature working range	Normal use: -10°C to +40°C Exceptional use (20% of the life time not simultaneous): -20°C to +70°C
Noise level	According to SOMFY measures (for information only). Worse value: in load up direction during 10 seconds.



IX Aydınlatma Sistemi

Our pergola lighting fixtures have 3 pieces, each with 1 Watt power, min. It is manufactured with Samsung or Ostram LED lenses that provide 250 Lumens of light. This system, which is produced by arranging on aluminum PCB, is protected by a transparent plastic cover surrounding the electronic system. All electrical connections are manufactured with SOCKET PASS system with CE certification in IP65 / IP66 and IP67 standards. There are no bare-end connection details. All cables used by Sunset are made of 1st Class, 100% Copper. Sunset cooperates with the world's number 1 manufacturer "Mean Well" as an AC-DC adapter. LPV 100 Series 12V transformers in IP67 standard are used in our products. Sunset AS offers you the unique and most comprehensive lighting options in the sector, taking into account the value that lighting adds to the visuality of the product. Lighting fixtures used in our products are environmentally friendly LED modules are originating in Turkey.

With Triple Light, Sunset AS offers the opportunity to choose one of the lighting models that will best suit your living space. Your choice will further help you customize your product. In Turkey and in the world "3" option chance only in AS SUNSET.

Right of DIM - Sunset AS is proud to offer you the Dimmer option as a standard. You no longer have to pay hundreds of Euros for your Dimmer needs

