Bioclimatic Pergola with adjustable blades
Summary

The bioclimatic pergola with adjustable blades 3
Key words: ADAPTABILITY and MODULARITY 4 et 5
Optimize your installation 6
DTS study (Dynamic Thermal Simulation) 6
Orientation 6
Maintenance 6
Dimensions 7
“Exploded” view 8
The beams 9
Assembly 10
Scale drawings 10 / 11
100% French quality 12
‘Origin France Garantie’ certification 12
Qualicoat and Qualimarine 12
SOLISYSTEME Guarantees 12
CSTB (wind and rain) and Load Test (snow) 13
Options 14
Accessories 15
The bioclimatic pergola with adjustable blades

Dress you patio for four seasons

The SOLISYSTEME adjustable blade pergola is a patented system of terrace covering that combines functionality and aesthetics. It is a perfect compromise between blinds and verandas. The aluminum blades are easily adjusted manually or with a...
The key words:
Adaptability...

Our adjustable blade pergolas are made of two distinct elements: the supporting structure and the modules.
Our aluminum structures suit most configurations and they can also be integrated with any other structure and design that you choose: aluminum structure, steel structure, concrete framework, glued-laminated frame...

Module in SOLISYSTEME
free standing structure

Module in SOLISYSTEME
structure set in concrete

Module in SOLISYSTEME
structure wall-mounted

SOLISYSTEME module flush mounted
(in wooden frame, steel, aluminium...)
... and Modularity

The rectangular Modules can be custom built and combined in a multitude of configurations and orientations that will suit any project.
Optimize your installation

DTS study (Dynamic Thermal Simulation) by Efilios Energies:

Study on the impact of different sunscreening solutions on residential buildings. The SOLISYSTEME bioclimatic system of shading allows the best shading solution all year round: «When sunlight strikes windows the temperature of your house increases. SOLISYSTEME’s blades allow total protection from the sun and conversely, when you need heating in the winter, SOLISYSTEME’s blades can optimize the amount of sunlight captured. This additional input can help reduce energy bills.»

Orientation of the blades relative to the facade:

To make the most of your bioclimatic pergola, it is best to install the blades parallel to a south-facing wall. Throughout the day, the shade / sun ratio will be optimized according to the position of the sun and without having to move the blades. In this configuration the bioclimatic notion makes the most sense.

Maintenance Precautions:

Use a sponge with soapy water or a non-corrosive cleaning product to clean the system.
Clean the inside of the frames and ensure the gutters are free from leaves. Regularly check the condition of the seals, pins, rollers and screw tension.

- West facade: Blades perpendicular to the facade
- North facade: Blades parallel to the facade
- East facade: Blades perpendicular to the facade
- South facade: Blades parallel to the facade
Dimensions
Manual or motorized modules

Area per module:
Up to 12m² for manual module
and up to 16m² for motorized

Up to 3m / 3m925 width
Frame side: adjustment mechanism on left or right

Up to 6m depth
Gutter side: rain drainage in columns

8mm/m slope

Standard blades for modules up to 3m
Weight: 15kg / m²

XL 38 Blades for modules up to 3m925
Weight: 18kg/m²

REVO blades for modules up to 3m925
Weight: 15kg/m²
avec seal et caps
A specific set of aluminum beams and mechanical elements
All the beams that make up our bioclimatic pergolas are 6060 First Fusion aluminum.

The combination of structural elements (A and B profiles) allows our columns to achieve different support capacities according to their dimensions: up to 4.50m between 50x210 columns and up to 6m between 50x315 columns. Rainwater drainage is achieved inside the columns. A2 and A4 stainless steel screws

### DESIGNATION and characteristics

<table>
<thead>
<tr>
<th>Structural element</th>
<th>Profile outline</th>
<th>Maximum length (mm)</th>
<th>Dimension (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile beam A - «Référence»</td>
<td><img src="image" alt="Profile beam A" /></td>
<td>6250</td>
<td>50x105</td>
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<tr>
<td>Profile beam B - «Référence»</td>
<td><img src="image" alt="Profile beam B" /></td>
<td>6250</td>
<td>50x210</td>
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<td>Profile beam C - «Référence»</td>
<td><img src="image" alt="Profile beam C" /></td>
<td>6250</td>
<td>50x260</td>
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<td>Lower finishing profile U cable cover</td>
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<td>6250</td>
<td>50x35</td>
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<tr>
<td>Column</td>
<td><img src="image" alt="Column" /></td>
<td>6100</td>
<td>115x115 155x155</td>
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<tr>
<td>Standard tubular blade</td>
<td><img src="image" alt="Standard tubular blade" /></td>
<td>2880</td>
<td>190x30</td>
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<tr>
<td>Tubular blade XL 38</td>
<td><img src="image" alt="Tubular blade XL 38" /></td>
<td>3805</td>
<td>195x38</td>
</tr>
<tr>
<td>REVO Blade</td>
<td><img src="image" alt="REVO Blade" /></td>
<td>3805 (with caps)</td>
<td>196x38</td>
</tr>
<tr>
<td>Profile G (support and gutter)</td>
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<td>6050</td>
<td>55x70</td>
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<tr>
<td>Frame end</td>
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<td>255x77</td>
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<tr>
<td>End Gutter</td>
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<td>180x87</td>
</tr>
</tbody>
</table>
Assembly

Wall mounting and ground securing (in concrete) is achieved with expanding pins. Refer to current regulations and standards for mounting in other materials.

Maximal width of the moduls:
- 3000 mm maximum (louver 30 mm)
- 3500 mm maximum (louver XL 38 mm)

The dimensions are tailor made
Optimal measures:
- 1500 mm, 2000 mm, 2500 mm, 3000 mm, 3500 mm

Obligation:
- Minimal slope on the system: 8 mm/m
The different slopes:
- Horizontal structure and slope on the system
- Slope on the structure and alignment between system and structure
- Slope on the structure and slope on the system
Integration of module into a structure with a 8mm / m

Dimension drawing for manual control and slope on the system

Integration of module into a horizontal structure
Designed, patented and manufactured entirely in France, each of our pergolas is custom prepared and has the ‘Origin France Garantie’ certification issued by Bureau Veritas.

Qualicoat: label attesting to the quality of the powder coating process.
- High UV resistance
- Excellent gloss finish
- Ecological efficiency
- Compliance with highest quality standards
- Better color retention
- Good resistance to chemical products

Qualimarine: pre-lacquering aluminum surface preparation for seaside installations. Qualimarine is also highly recommended for heavily polluted industrial areas.

SOLISYSTEME Guarantees
We have been designing and manufacturing bioclimatic pergolas for over 15 years. That’s an unbeatable 15 years of know-how. We therefore guarantee our aluminum parts (blades and frame profiles) for 10 years. Our operating mechanisms and motors come with a 3 year warranty. Electronics have a 2 year warranty. ‘Décénale’ guarantee is according to the installer.
CSTB Test (Scientific Technical Centre for the Building Industry)
At the request of SOLISYSTEME, CSTB carried out a series of tests in their wind tunnel to analyze wind and rain impact on SOLISYSTEME pergolas (EN CAPE rapports 13.169 and 13.170).
Rain test: Rainfall discharge capacity has been validated for very severe conditions (230 mm / h)
Wind Test: Wind resistance of the pergola (of the blades in particular) has been tested up to 180 km / h

Snow load of 300kg/m2 - APAVE validated test
Static load resistance test was carried out by SOLISYSTEME (data for information only and in no way counts as certification for specific projects).
Blades can be adjusted manually with a simple handle or effortlessly with a remote control operating a silent motor.

SOLISYSTEME box
- IP 65 class 2110
- 240 Volts AC / 50-60Hz - 100W
- Operating Temperature: -20 ° to +60 ° C
- Dimensions: 254x205x62mm
- 3 channels for motors, one channel for lighting
- RTS SOMFY 433.42 Mhz Compatible

- Coupled with a weather station, the pergola fears neither rain nor wind.
- Humidity sensor automatically closes blades when it rains.
- Wind sensor opens the blades to minimize the impact of strong wind

Sensor priorities are selectable.

Color of blades and structure: A wide range (RAL and textured paints) of over 500 colors is available upon request to perfectly match your exterior.
1. **ZIP Side blinds:**
   Motorized, installable on the side or tunnel embedded. Casing and mechanisms are powder coated aluminum. High strength fabric.

2. **Lateral kits:**
   Aluminium blades 100x18mm
   Linkage ABS.

3. **Sliding glass walls:**
   10mm thick safety glass.
   Rails anodized / powder coated.

4. **LED Lighting:**
   LED spotlights built into the structure of the lower U profile. IP65 - 4w - 120° light beam with variable intensity.

5. **Radiators:**
   Electric radiators.