

IASO®

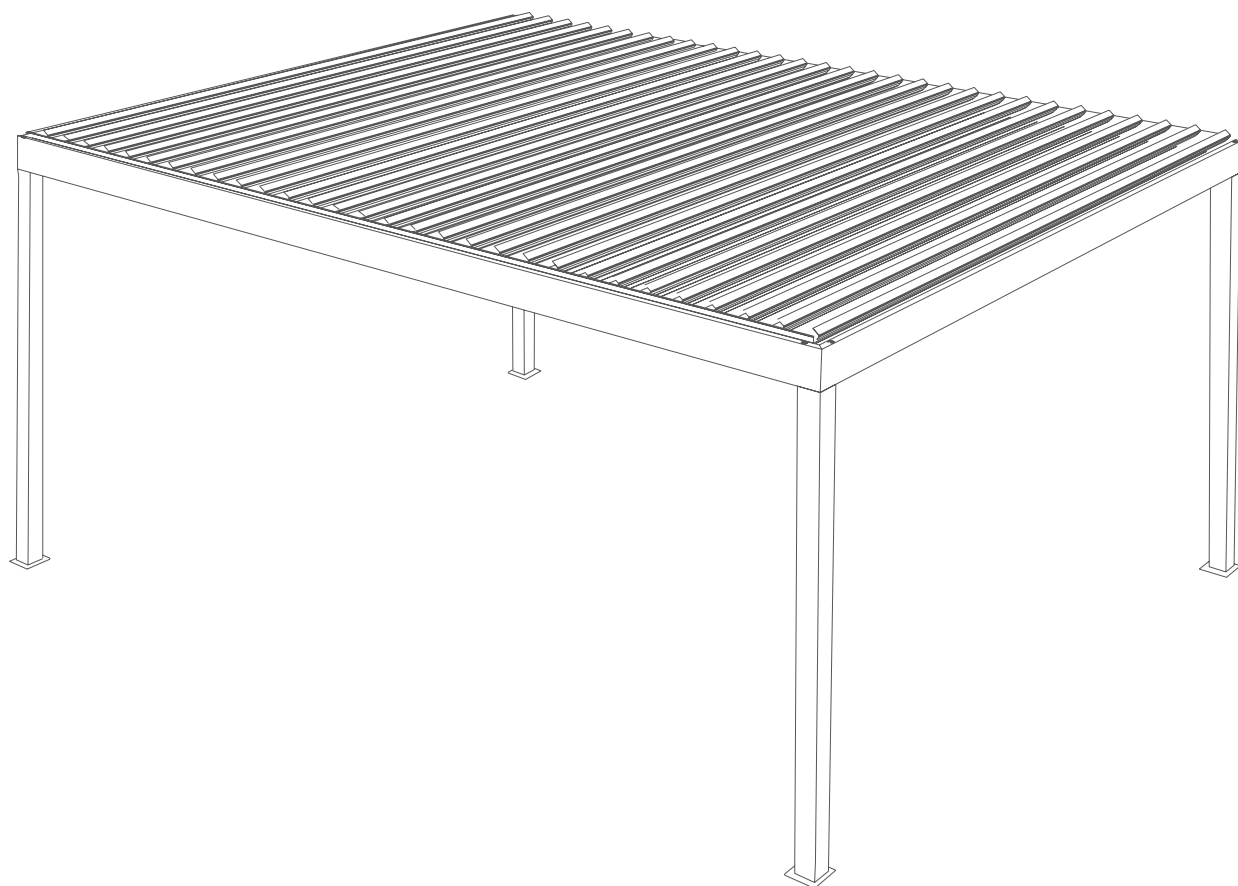
Better Outside

TECHNICAL DATA SHEET

ENGLISH

PERGOLAS

PERGOLAM



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DESCRIPTION

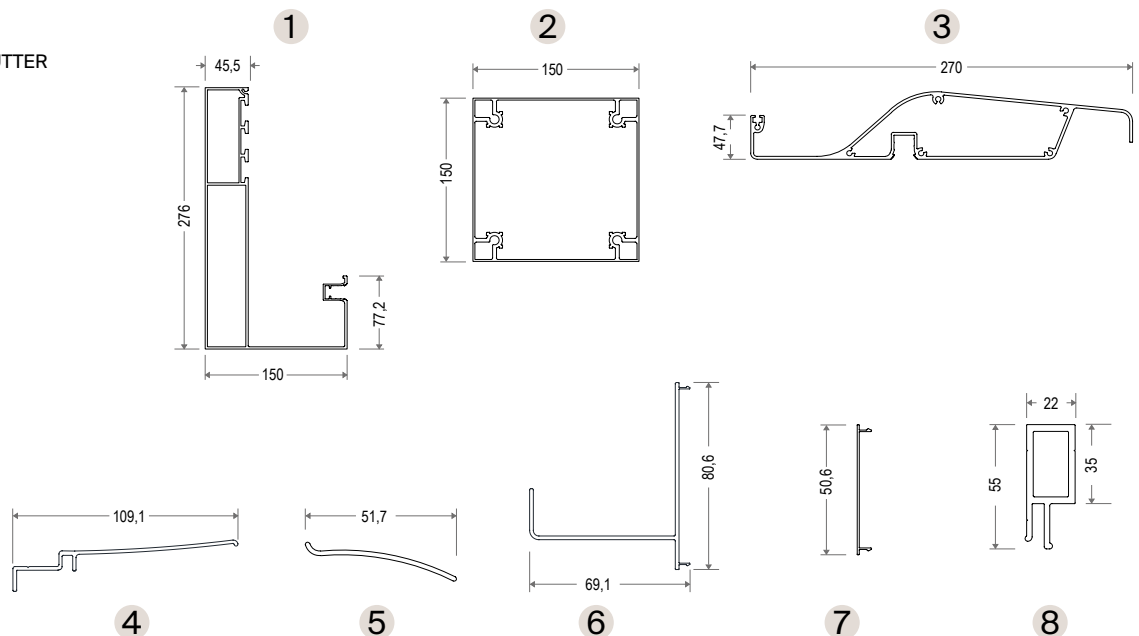
Pergolam is a bioclimatic pergola built entirely with aluminium profiles. Its 27 cm-wide louvres allow light and breeze to pass through when opened, creating a greater sense of openness. They feature a continuous or step rotation system at 0°, 50°, 100°, and 120°, which, when fully closed, seals the roof completely to prevent the passage of light and water.

TECHINICAL SPECIFICATIONS

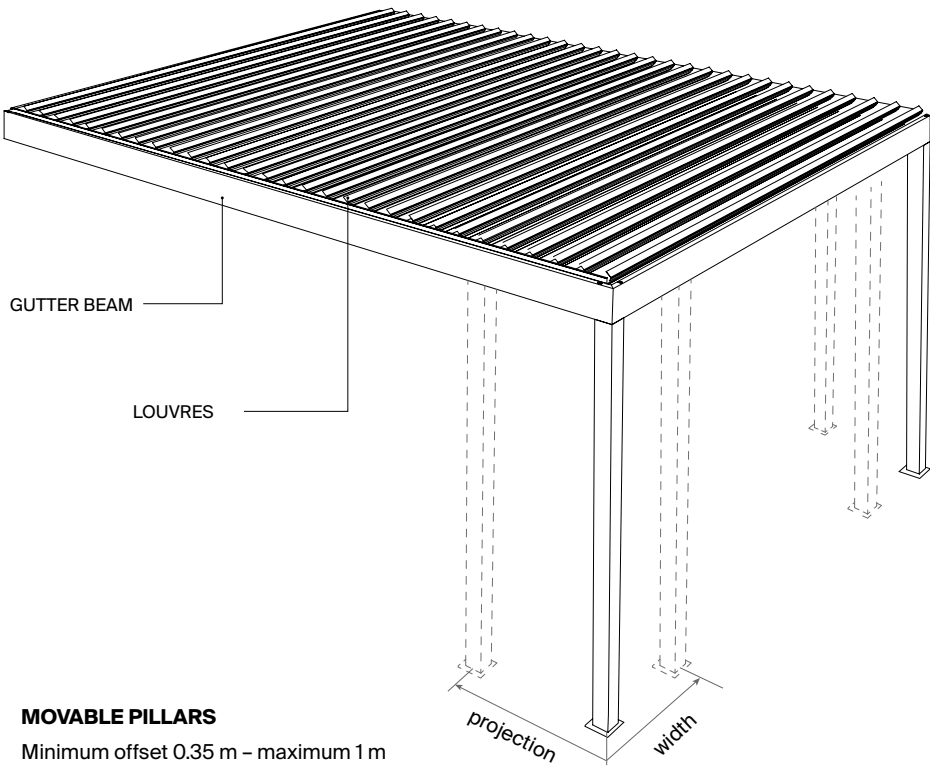
- Structure made of 6063-T5 aluminium profiles.
- Components with an electrostatic powder coating or anodised finish.
- Stainless steel bolts and fixings.
- Covers up to 42 m².
- Louvre rotation angle: from 0° to 120°.
- Louvre side slope between 0.5% and 1.5%.
- Wind resistance up to grade 12 on the Beaufort scale in single module and up to grade 10 in double module.
- 24 V telescopic motor with 1500 N force.
- Optional integrated LED or SPOT lighting system in the louvres.
- Optional LED lighting system along the perimeter.
- Remote control for motor and lighting.
- All our products are ALL SEASONS.

MAIN PROFILES

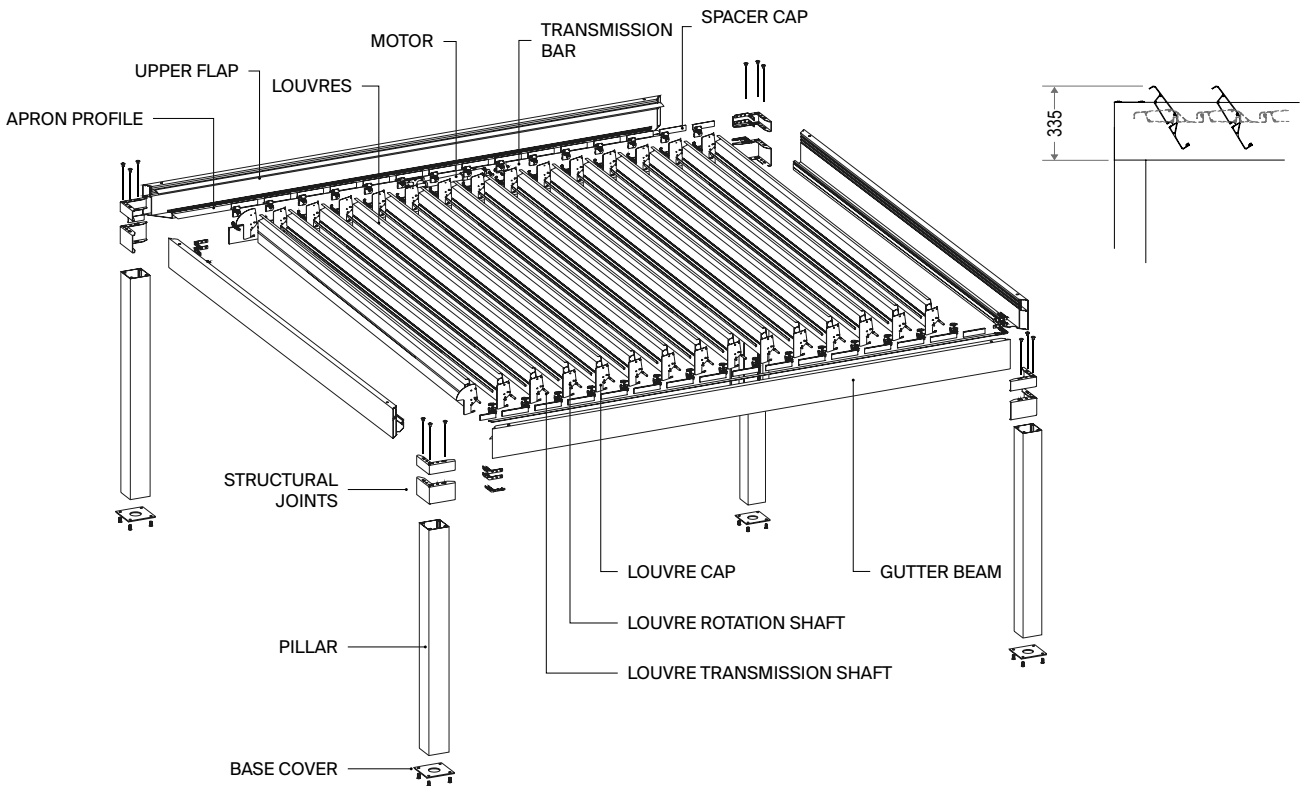
- 1 PERIMETER PROFILE / GUTTER
- 2 POST
- 3 LOUVRE
- 4 APRON PROFILE
- 5 UPPER FLAP
- 6 LOWER FLAP
- 7 SPACER CAP
- 8 TRANSMISSION BAR



COMPONENTS



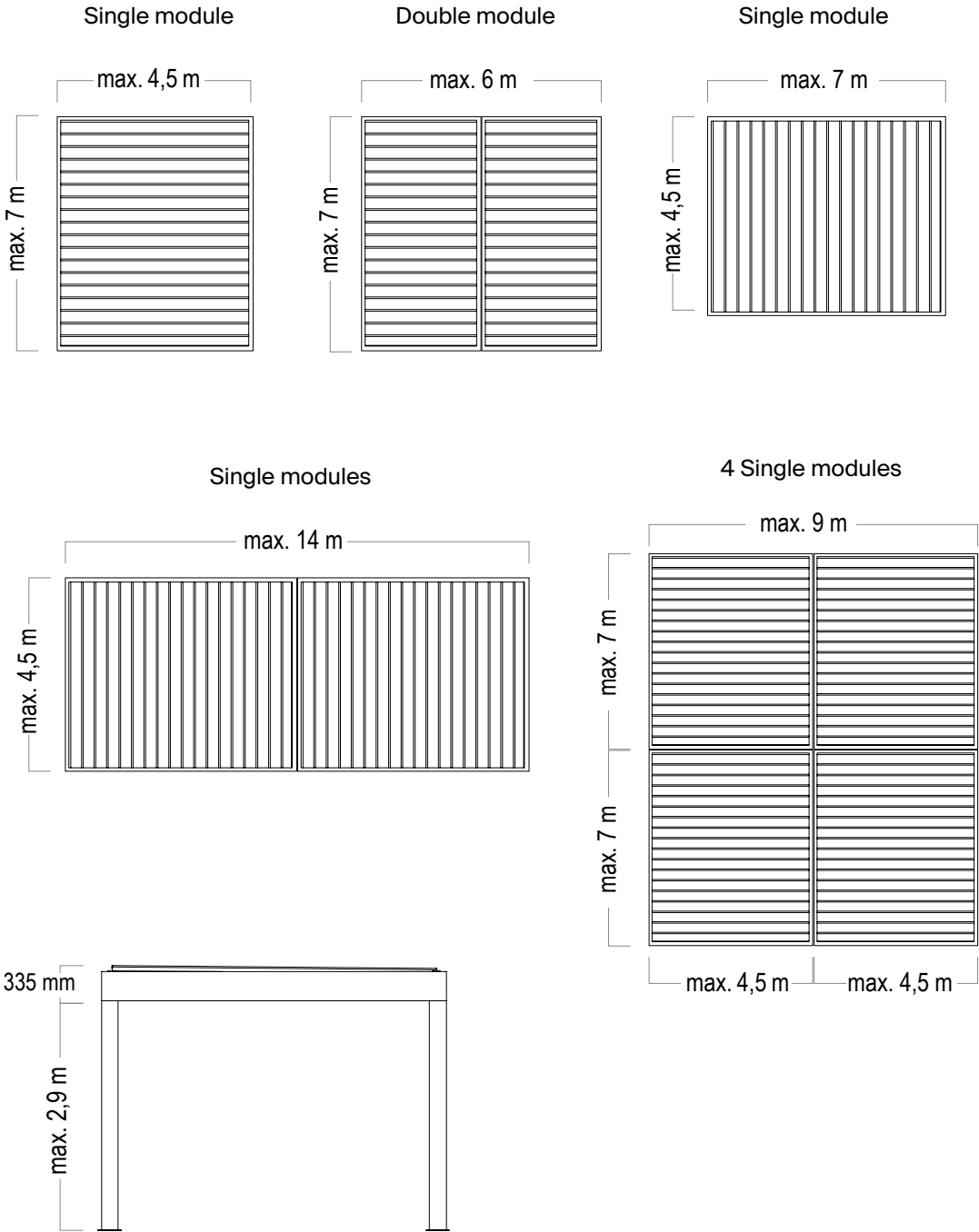
MOVABLE PILLARS
Minimum offset 0.35 m - maximum 1 m from the end of the gutter to the pillar axis.



DIMENSIONS

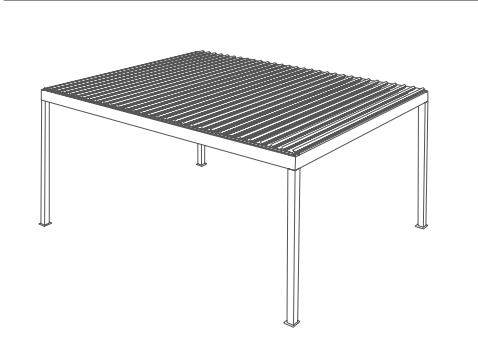
WIDTH		PROJECTION
single	double	
2,5 - 4,5	4,5 - 6	2,5 - 7

* ALL DIMENSIONS ARE MAXIMUM VALUES
ACCORDING TO THE CONFIGURATION

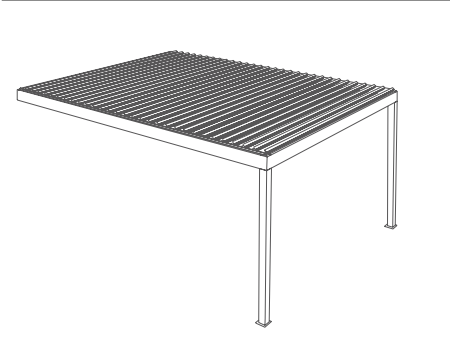


INSTALLATION OPTIONS

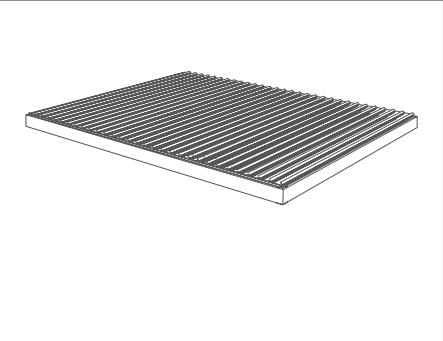
FREESTANDING



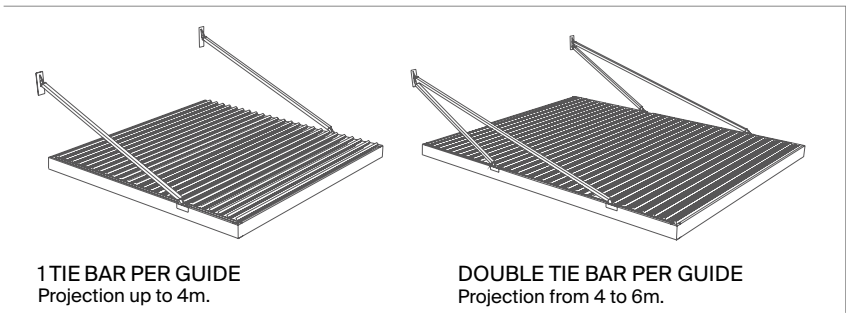
WALL-MOUNTED



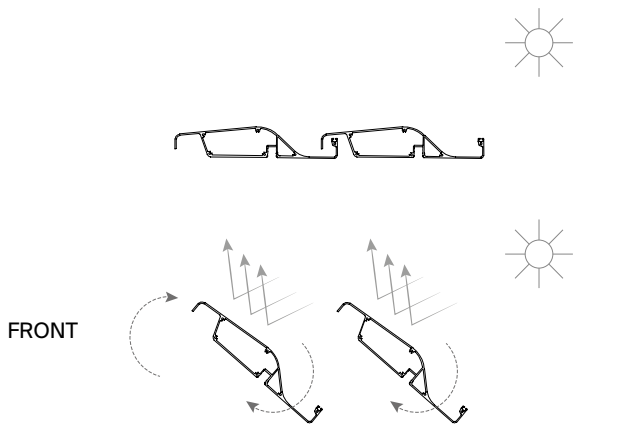
BETWEEN WALLS



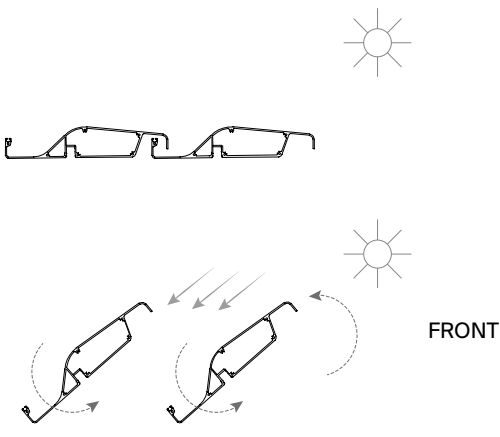
WITH TIE-RODS



LOUVRE ORIENTATION



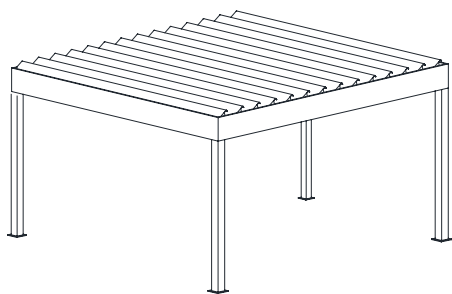
STANDARD SOLAR SHADING:
Blocked light with open louvres



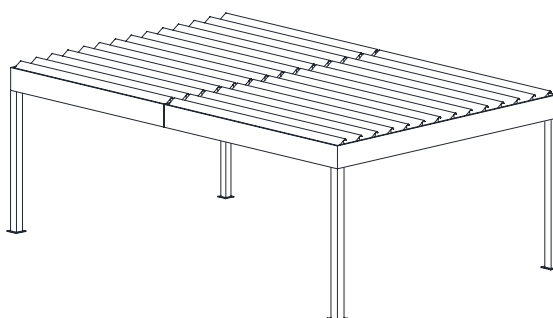
Passing light with open louvres

INSTALLATION CONFIGURATIONS

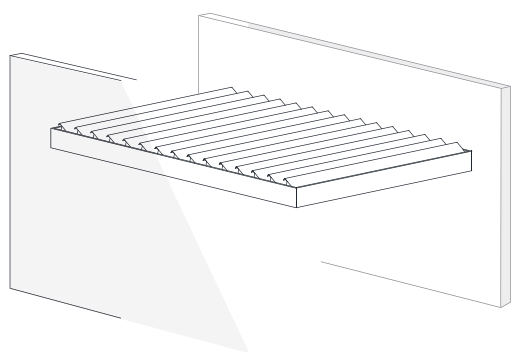
FREESTANDING Simple module



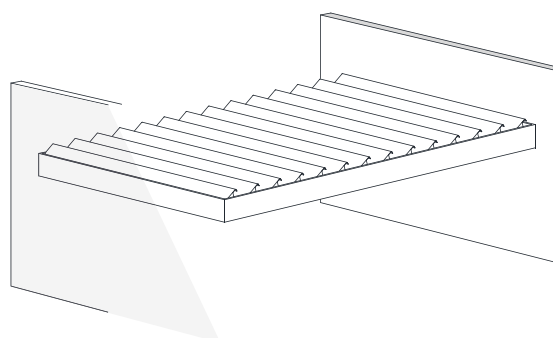
FREESTANDING Double module



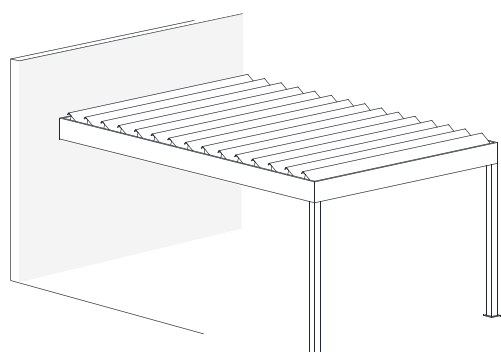
BETWEEN WALLS Side



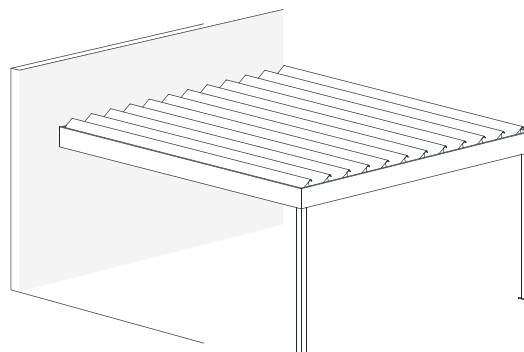
BETWEEN WALLS Front



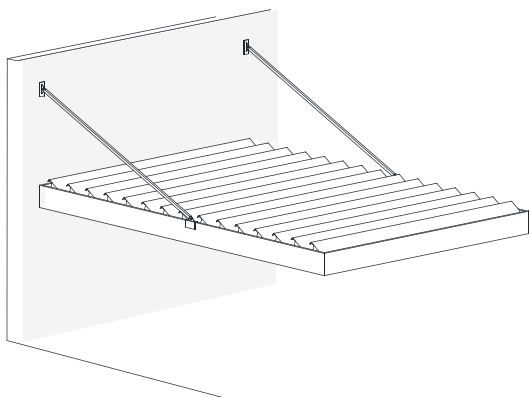
WALL-MOUNTED Front



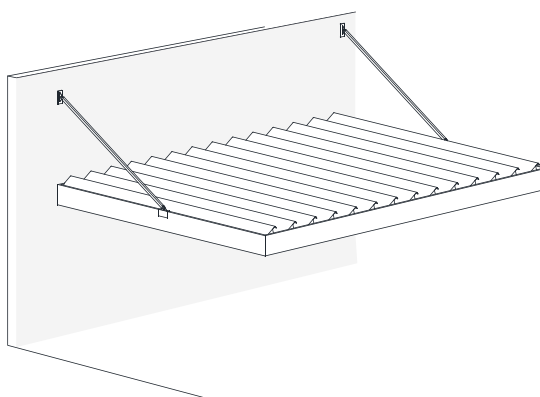
WALL-MOUNTED Side



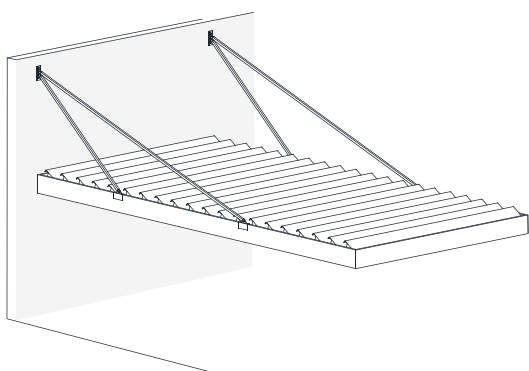
WITH TIE-RODS Front
Projection max. 4 m



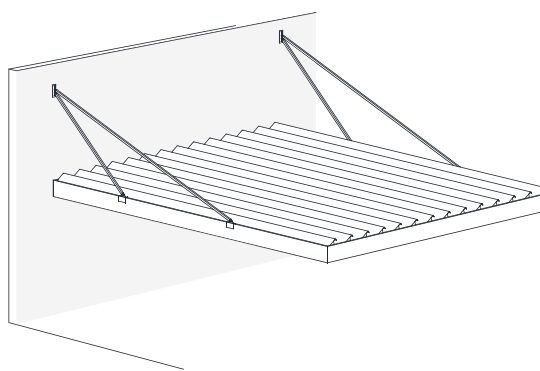
WITH TIE-RODS Side
Projection max. 4 m



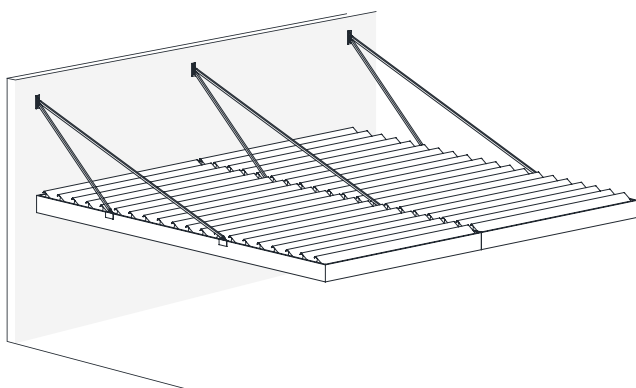
WITH DOUBLE TIE-RODS Front
Projection from 4 to 6 m



WITH DOUBLE TIE-RODS Side
Projection from 4 to 6 m

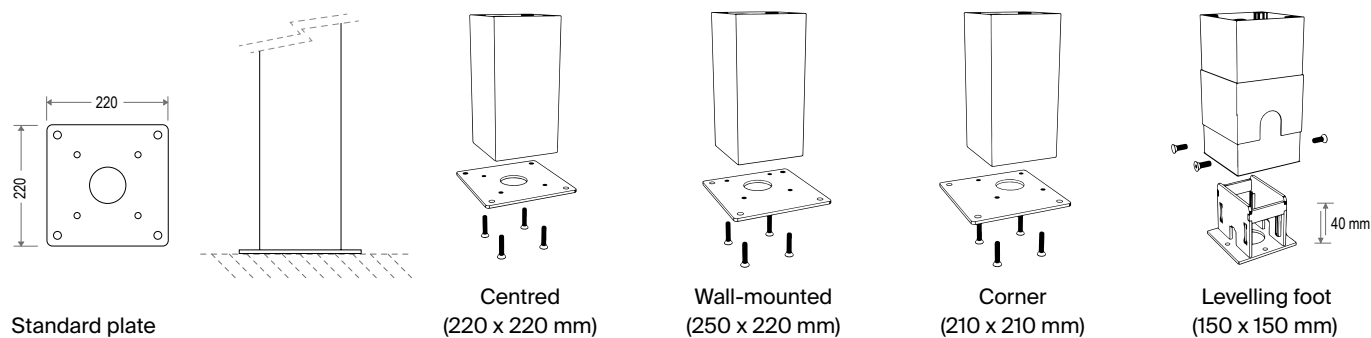


WITH DOUBLE TIE-RODS Double module
Projection from 4 to 6 m

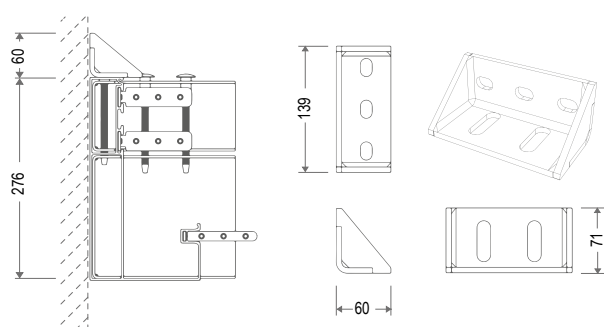


ANCHORS AND FIXINGS

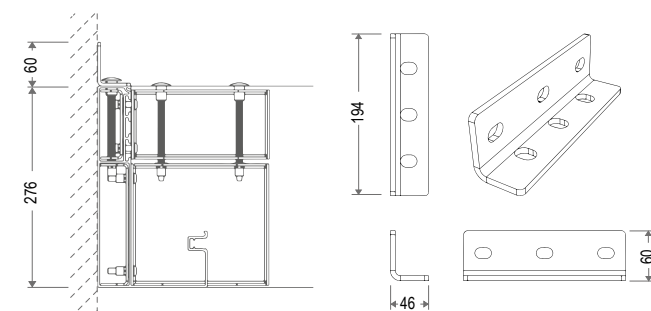
POST-TO-GROUND FIXING



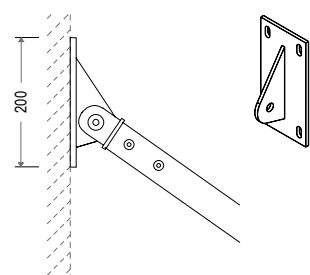
Corner connection of structure to wall



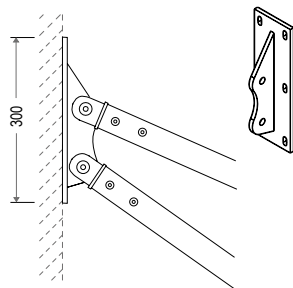
Intermediate connection of structure to wall



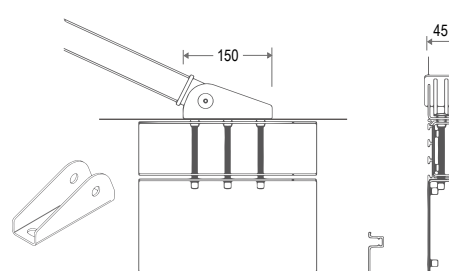
SINGLE TIE BAR FIXING TO WALL



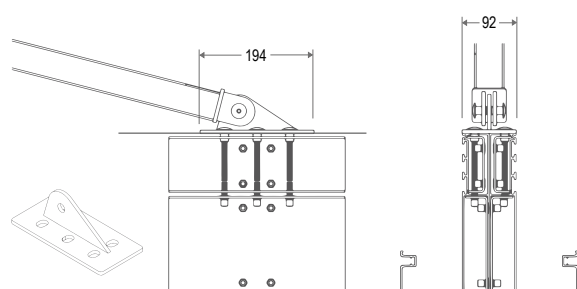
DOUBLE TIE BAR FIXING TO WALL



LATERAL TIE BAR FIXING TO STRUCTURE



INTERMEDIATE TIE BAR FIXING TO STRUCTURE



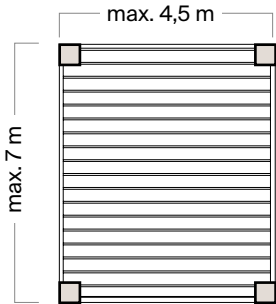
PILLAR DISTRIBUTION

(FREESTANDING)

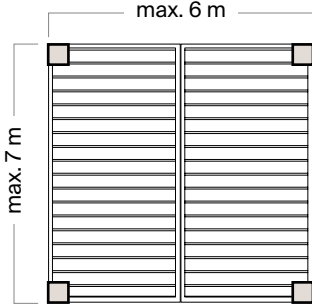
- Corner pillar
- Shared pillar

*La opción 4 módulos sencillos tiene dos posibles distribuciones dependiendo de las dimensiones del conjunto.

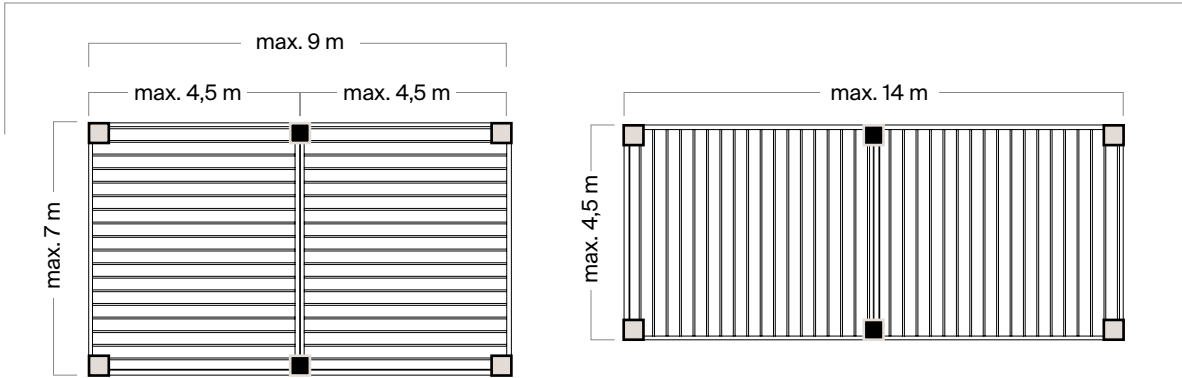
Single module



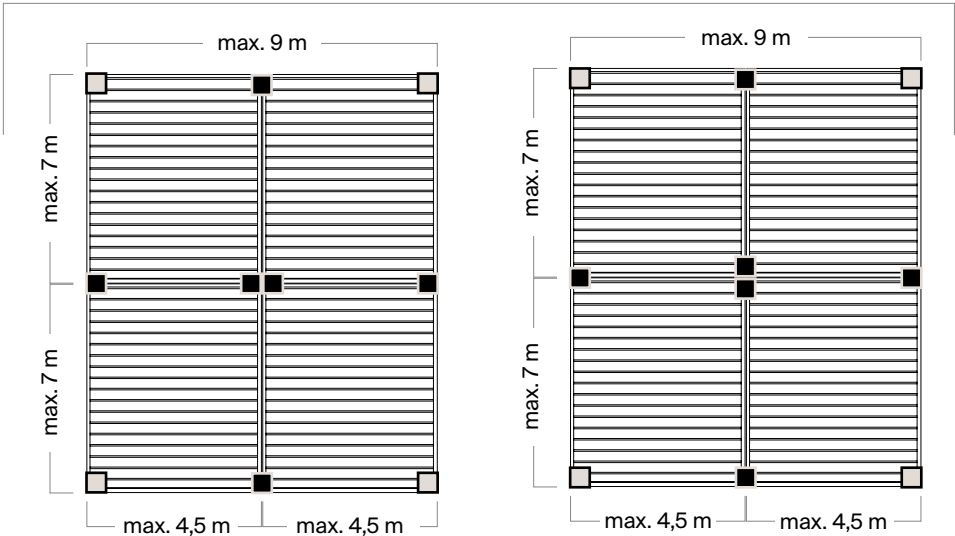
Double module Without center pillar



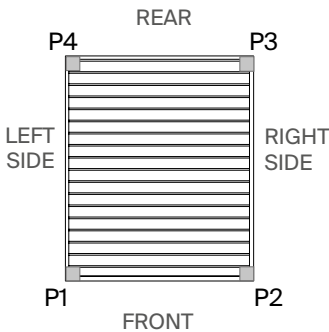
2 single modules With shared pillars



4 single modules* With shared pillars

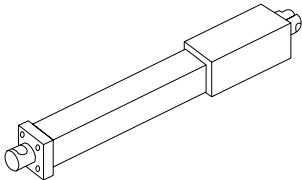


POSITION NOMENCLATURE

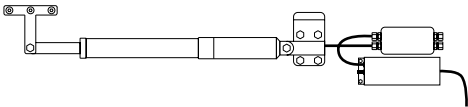


MOTORISATION

ESPECIFICACIONES TÉCNICAS	
Motor speed	3800 RPM
Capacity	1500 N
No-load speed (24V)	12 ± 2 mm/s
No-load noise level (24V)	≤ 60 dB
Speed at rated load (24V)	9.5 ± 2 mm/s
Current at rated load (24V)	≤ 3.0 A
Self-locking capacity (Min)	1000 N
Operating temperature	-5°C~45 °C



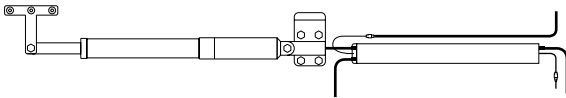
MOTOR (Projection > 4983 mm)



ACCESSORIES

- Wired rain sensor (1 unit for each pergola)
- Wired wind sensor (1 unit for each pergola)

MOTOR WITH CEILING AND/OR PERIMETER LED LIGHTING (Projection < 4982 mm)



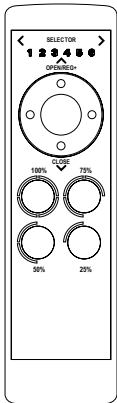
ACCESSORIES

- Wireless rain sensor
- Wireless sun and wind sensor

EMITTER

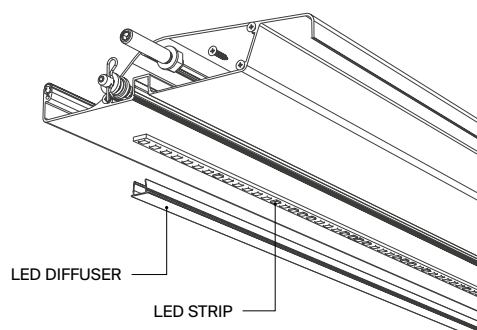
EMITTER NOON 42 chanel

ESPECIFICACIONES TÉCNICAS	
Power supply	3V ± 10%
Lithium battery	CR2430
Battery lifespan	>2 years
Protection rating	IP20
Dimensions	125x40x10 mm
Operating temperature	-5°C~50 °C
Transmission power	10 mW
Radio frequency	433.925 MHz
Operating range	35 m

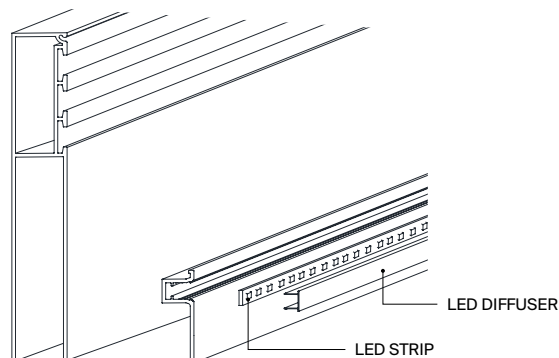


LIGHTING

LOUVRE LIGHTING



PERIMETER LIGHTING

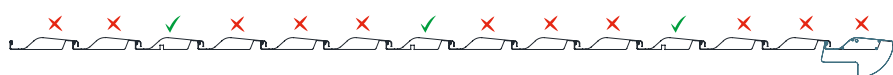


STANDARD DISTRIBUTION EVERY 4 LOUVRES

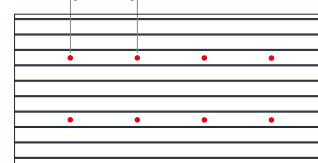
Even number of louvres



Odd number of louvres



1 to 1,30 m

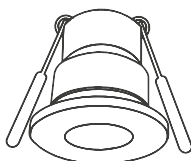


SPOT LIGHT CHARACTERISTICS

Optional for louvre lighting (ON / OFF or Dimmer)

TECHNICAL SPECIFICATIONS

Colour	Warm white
Coloure temperature	3000 K
Beam angle	120°
Consumption	4,5 W/spot
Voltage	24V DC
Luminous flux	280-300 Lm
Protection rating	IP65
Dimensions	Ø36 mm
Recessed hole	Ø22 mm
Material	Aluminium

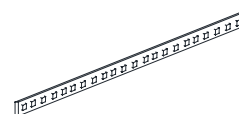


LED STRIP CHARACTERISTICS

Optional for perimeter and louvre lighting

TECHNICAL SPECIFICATIONS

Colour	Warm white
Coloure temperature	3200-3300 K
Beam angle	120°
Consumption	4,5 W/m
Voltage	24V DC
Luminous flux	280-300 Lm/m
Protection rating	IP65
Type of diode	SMD2835
Luminous flux maintenance	L70 B50
Service life	25.000 h
Efficiency	83 Lm/W
N° LEDs per metre	120



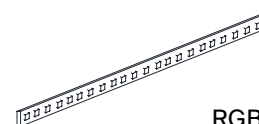
Switch off the lighting while the louvres are moving.

RBC LED STRIP CHARACTERISTICS

Optional for perimeter lighting*

TECHNICAL SPECIFICATIONS

Colour	R+G+B	Protection rating	IP65
Coloure temperature	3200-3300 K	Type of diode	SMD2835
Beam angle	120°	Luminous flux maintenance	L70 B50
Consumption	4,5 W/m	Service life	25.000 h
Voltage	24V DC	Efficiency	83 Lm/W
Luminous flux	280-300 Lm/m	N° LEDs per metre	120



* Compatible with pergolas of 4.5 x 5 m or a maximum of 22.5 m², with lighting on blades and perimeter.

WIND CLASSIFICATION

CLASS	Grade Beaufort	Wind speed		Pressure	Environmental condition
0	0	0 - 1 km/h	0.0 - 0.3 m/s	0.05 N/m ²	Calm
	1	1 - 5 km/h	0.3 - 1.4 m/s	1.21 N/m ²	Very light breeze
	2	6 - 11 km/h	1.7 - 3.1 m/s	5.84 N/m ²	Light breeze
	3	12 - 19 km/h	3.4 - 5.3 m/s	17.41 N/m ²	Gentle breeze
1	4	20 - 28 km/h	5.6 - 7.8 m/s	37.81 N/m ²	Moderate wind
2	5	29 - 38 km/h	8.1 - 10.6 m/s	69.64 N/m ²	Fresh wind
3	6	39 - 49 km/h	10.9 - 13.6 m/s	115.79 N/m ²	Cool wind
4	7	50 - 61 km/h	13.9 - 17.0 m/s	179.45 N/m ²	Strong wind
5	8	62 - 74 km/h	17.5 - 20.6 m/s	264.08 N/m ²	Gale
6	9	75 - 88 km/h	20.9 - 24.5 m/s	373.46 N/m ²	Strong gale
-	10	89 - 102 km/h	24.7 - 28.3 m/s	501.74 N/m ²	Storm
	11	103 - 117 km/h	28.6 - 32.5 m/s	660.16 N/m ²	Violent storm
	12	118 - 133 km/h	32.6 - 36.9 m/s	853.06 N/m ²	Hurricane

In double configuration

In single configuration

CLASS ACCORDING TO STANDARD UNE EN 13561:2015

*The correspondence of the class according to UNE EN 13561 with the wind speed or Beaufort scale is indicative.

PRECIPITATION CLASSIFICATION

CLASS	Average intensity in one hour (mm/h)	Environmental condition
1	≤ 2	Weak
2	> 2 y ≤ 15	Moderate
3	>15 y ≤ 30	Strong
4	>30 y ≤ 60	Very strong
5	>60	Torrential



Not suitable for snow loads.
In the event of snowfall, the
pergola must be kept open.

FOUNDATION CALCULATION

With our Toscana Structure APP, we can design and calculate the ideal pergola in minutes, according to the wind and snow loads required by the client. It also automatically provides the technical specifications for the reinforced concrete base needed to anchor the pillars to the ground.

Our technical department is at your disposal to suggest the best configuration and achieve the optimal product with the most suitable technical specifications.





We believe in the *elegance* of engineering.