

IASO®

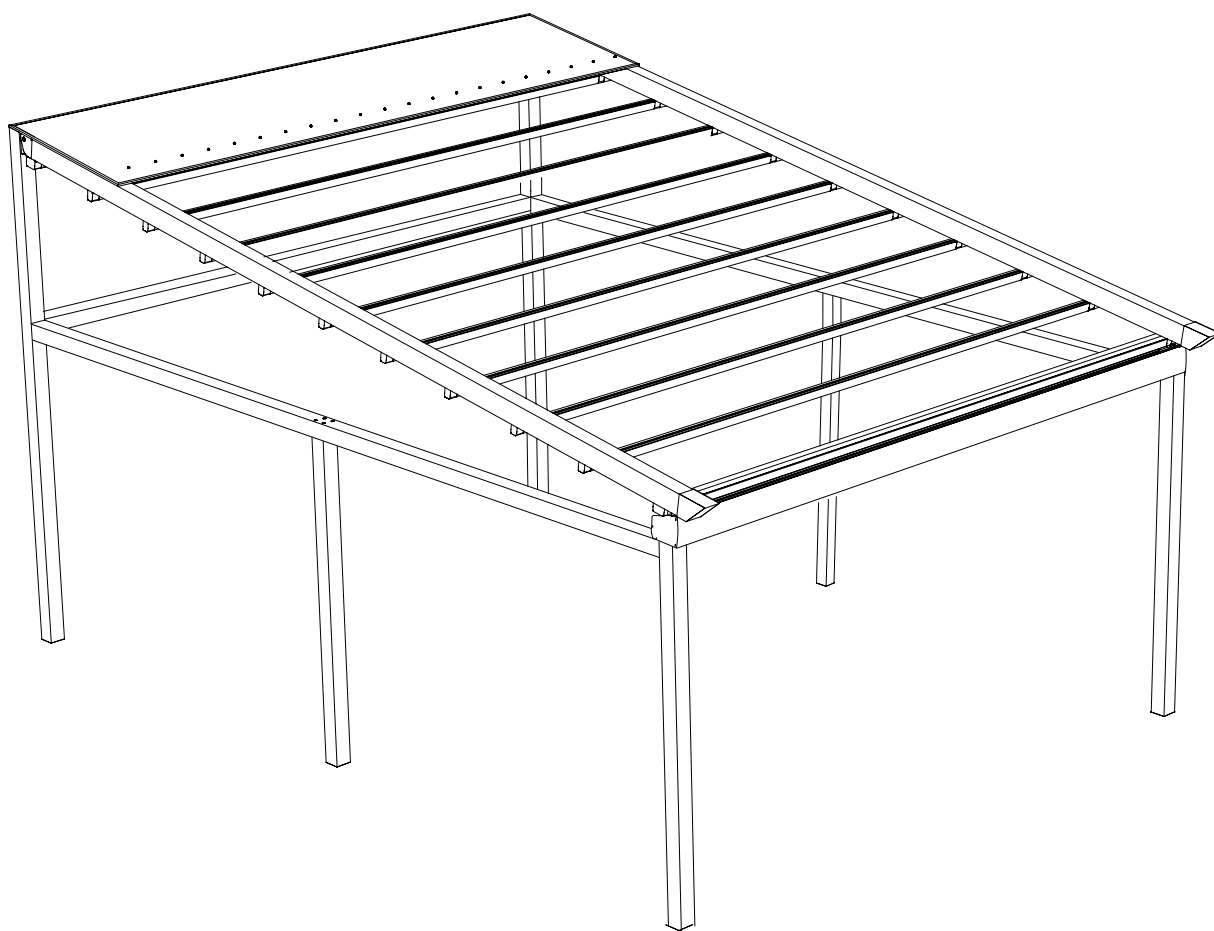
Better Outside

TECHNICAL DATA SHEET

ENGLISH

PERGOLA

PERGOSTAR PLUS MINI



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DESCRIPTION

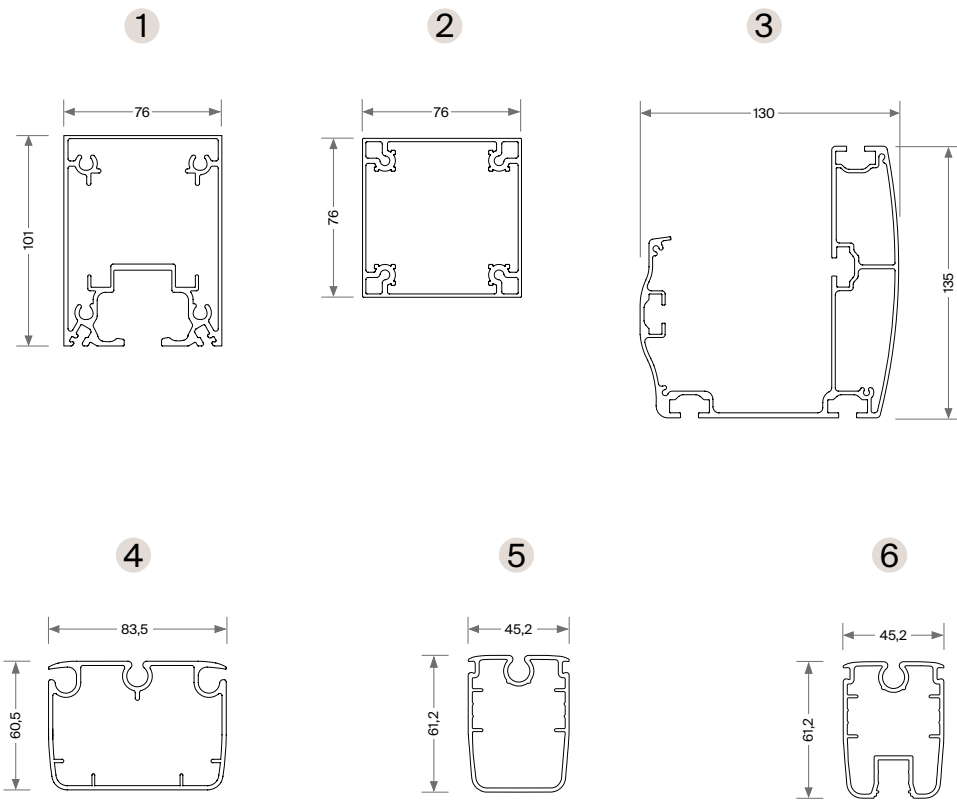
PERGOSTAR MINI is a straight retractable pergola with a tensioned fabric, composed of an aluminium structure and a fold-closing canopy. The fabric is fixed to a system of aluminium cross profiles, known as fabric carrying crossbars, which slide along straight guides for opening, thanks to specially designed runners. It features a gutter beam designed to handle high water flow rates, which can also serve as a track for repositioning the posts.

TECHNICAL CHARACTERISTICS

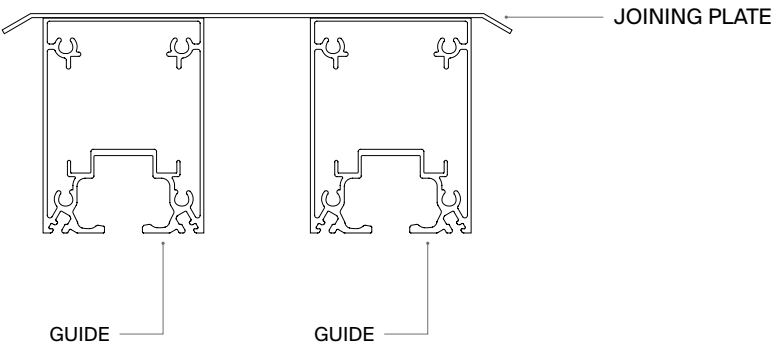
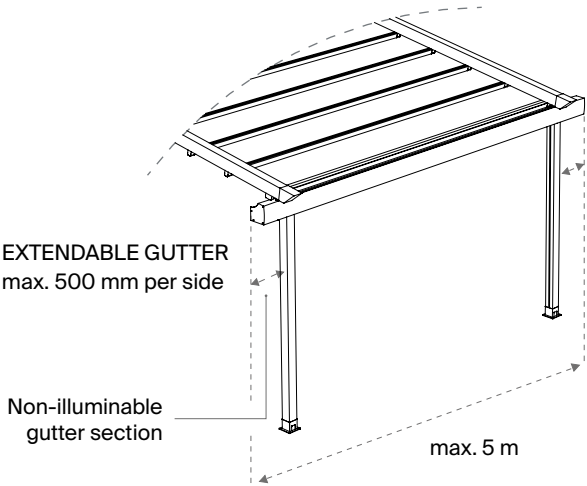
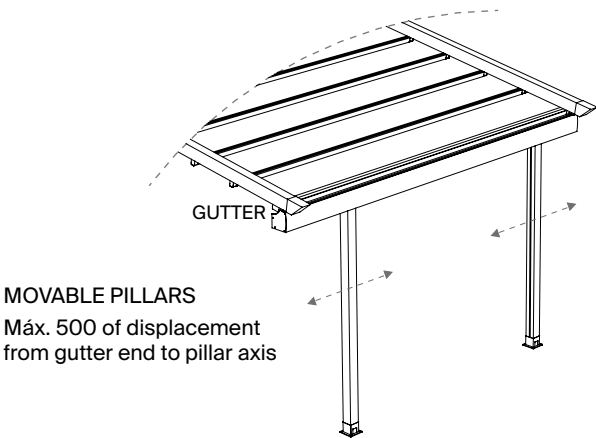
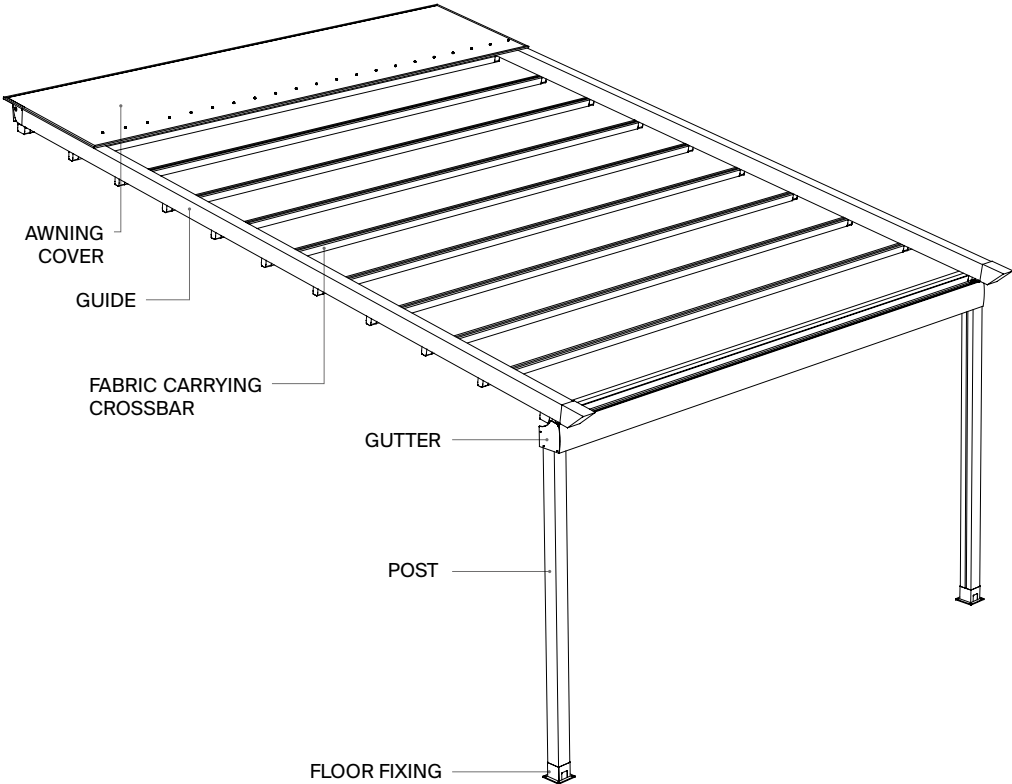
- Structure made of 6063-T5 aluminium profiles.
- Components with an electrostatic powder coating or anodised finish.
- Stainless steel and zinc-coated steel fixings and fasteners.
- Recommended slope: 15% (minimum 10%, maximum 25%).
- Covers up to 67.5 m² in triple module configuration.
- Wind resistant up to class 3 (force 6 on the Beaufort scale): 39–49 km/h (fabric extended).
- Rain resistance up to class 1 (17 l/m² per hour).
- Double transmission motor.
- Optional LED or SPOT lighting system integrated in the fabric carrying crossbars.
- Remote control for motor and lighting.
- Optional sensors for rain, smoke, and weather station (with home automation).
- “ALL SEASON”

MAIN PROFILES

- 1 GUIDE
- 2 POSTS AND FRONT CROSSBEAM
- 3 GUTTER
- 4 FINAL FABRIC CARRYING CROSSBAR
- 5 INTERMEDIATE FABRIC CARRYING CROSSBAR (without light or with spot light)
- 6 INTERMEDIATE FABRIC CARRYING CROSSBAR WITH LED STRIP



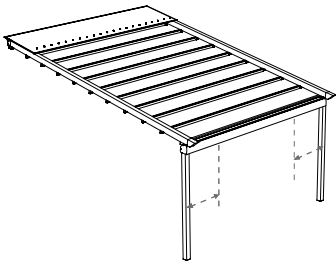
COMPONENTS



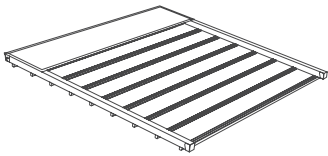
INSTALLATION OPTIONS

WALL-MOUNTED

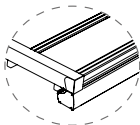
MOVABLE POSTS



BETWEEN WALLS

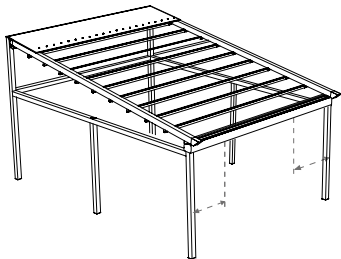


Optional gutter.
Gutter not included
by default.



FREESTANDING

MOVABLE FRONT POSTS



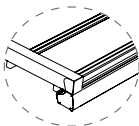
TIE RODS



1 TIE ROD PER GUIDE
Projection up to 4,5 m



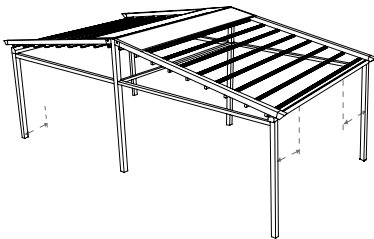
DOUBLE TIE ROD PER GUIDE
Projection from 4,5 m to 5 m



Optional gutter.
Gutter not included
by default.

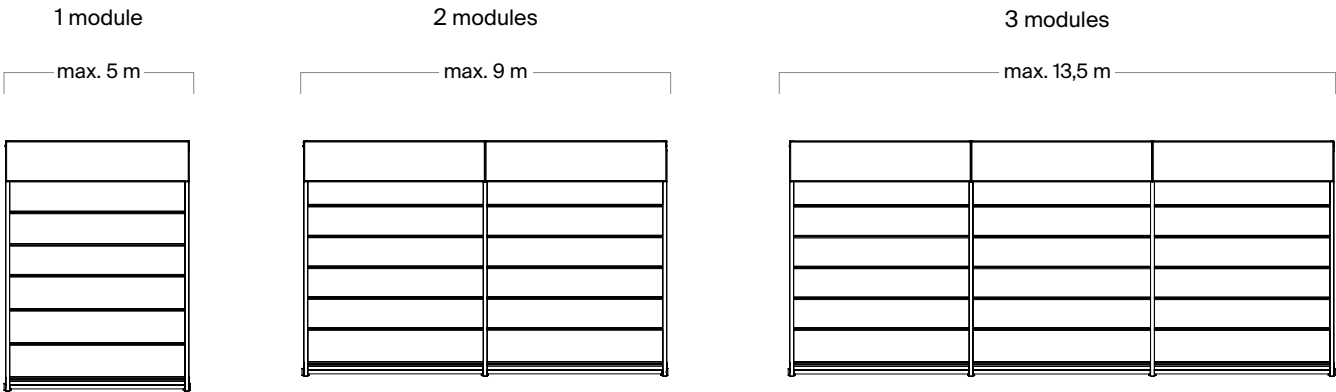
FREESTANDING FLOOR-SUPPORTED

MOVABLE FRONT POSTS

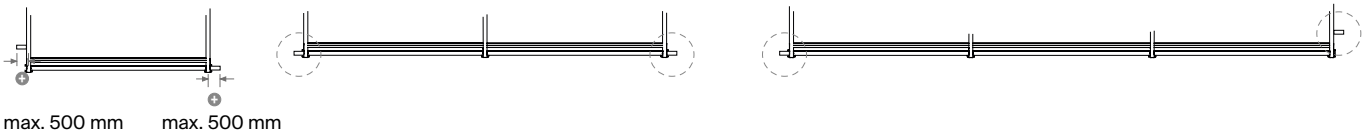


DIMENSIONS

(m)	1 module	2 modules	3 modules
WIDTH	2,5 to 5	5 to 9	9 to 13,5
PROJECTION	2,5 to 5,8	2,5 to 5	2,5 to 5



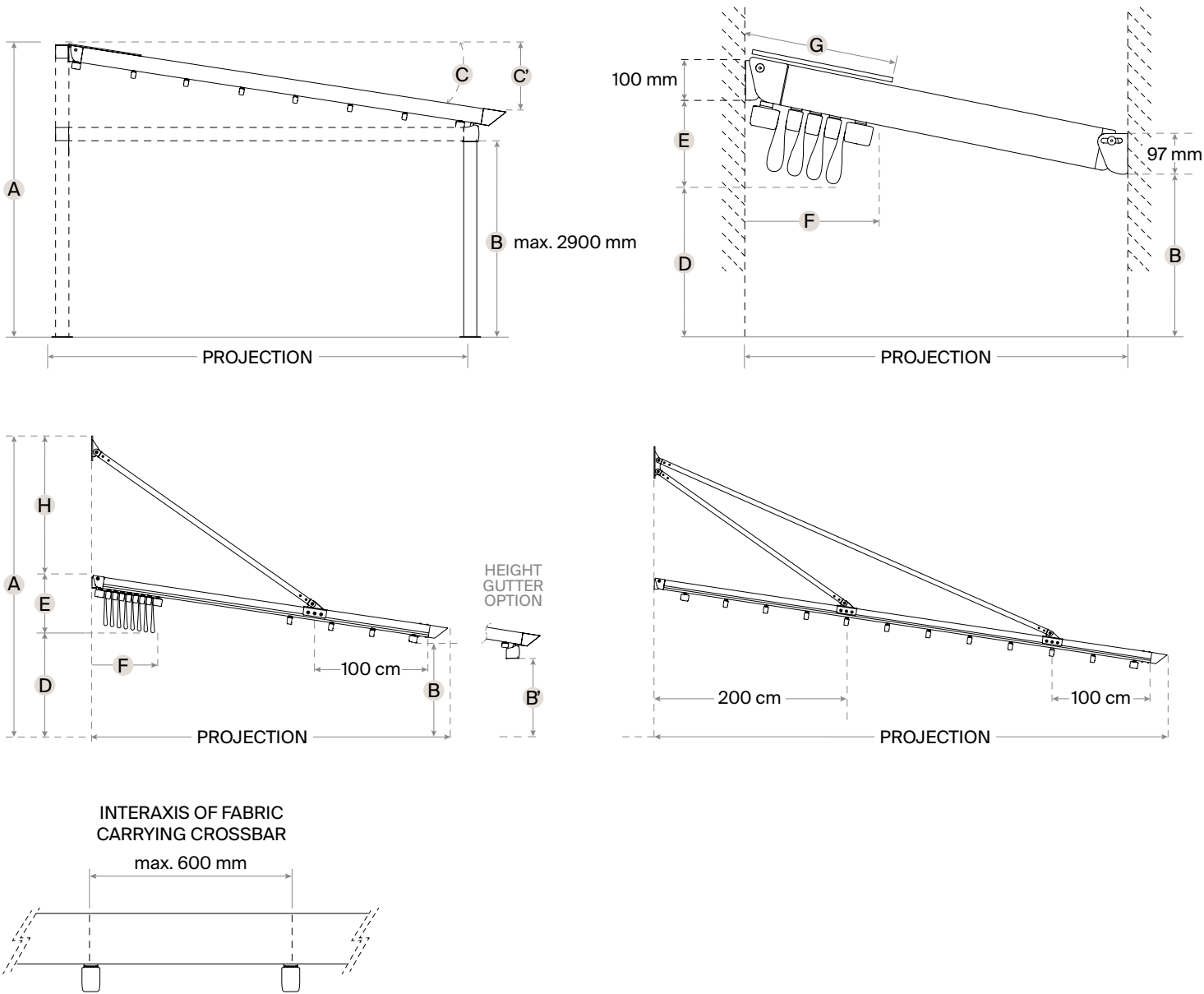
Extendable gutter option (max. 500 mm per side)
(from guide axis to post axis)



DIMENSIONS ACCORDING TO INSTALLATION

- A Maximum height
- B Clearance height
- B' Clearance height under gutter
- C Slope (%)
- C' Height difference of the slope
- D Height from ground to folded fabric
- E Folded fabric height
- F Folded fabric projection
- G Awning cover projection
- H Height from wall guide support to wall tie rod support

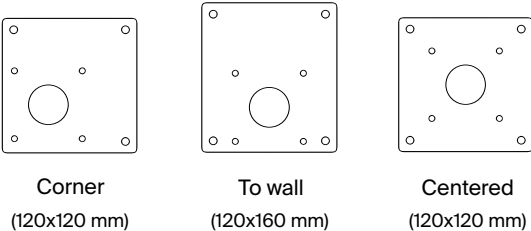
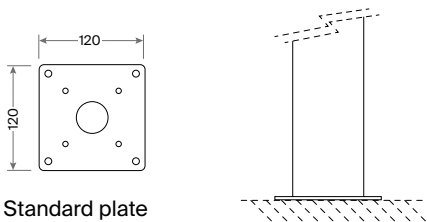
GUIDE	MINI			
PROJECTION	2000	3000	4000	5000
E	350	360	385	410
F	410	460	566	673
G	510	561	671	781



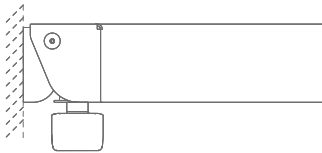
ANCHORS AND FIXINGS

See document
“Wall anchoring
instructions”.

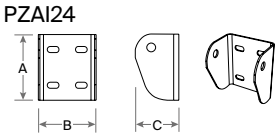
POST FASTENING TO GROUND



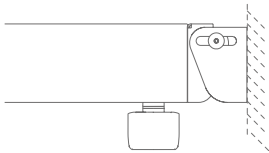
REAR WALL GUIDE FIXING



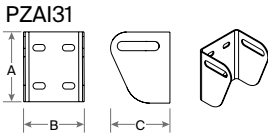
PZAI24	
A	100
B	68
C	51



FRONT WALL GUIDE FIXING

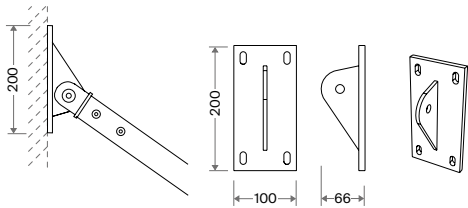


PZAI31	
A	97
B	85,5
C	72,5

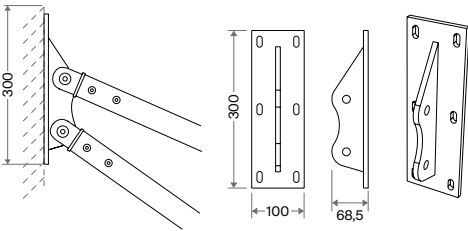


TIE-ROD OPTION: ONLY FOR BASIC

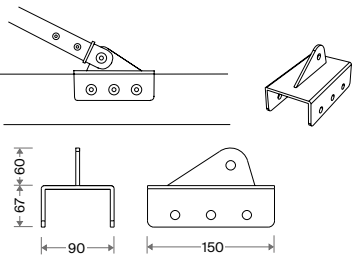
SINGLE TIE BAR FIXING TO WALL



DOUBLE TIE BAR FIXING TO WALL

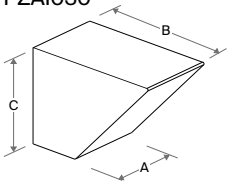


TIE ROD FIXING TO GUIDE



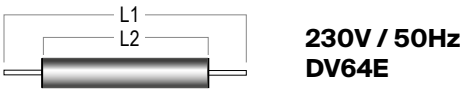
DECORATIVE COVER ON GUIDE

PZAI030



PZAI030	BASIC
A	110
B	164
C	80

MOTORISATION

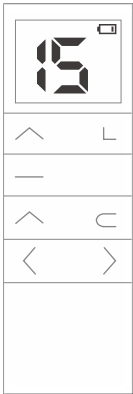


TECHNICAL SPECIFICATIONS	
Rated Torque (Nm)	2 x 25
Rated Speed (Rpm)	26
Rated Current (A)	2.22
Rated Power (W)	490
Degree of Protection (IP)	IP44
Maximum Limit Turn (turn)	∞
Running Time (min)	>4
Working Temperature (°C)	-10°C~50 °C
L1 / L2 (min)	545 / 411

EMITTER

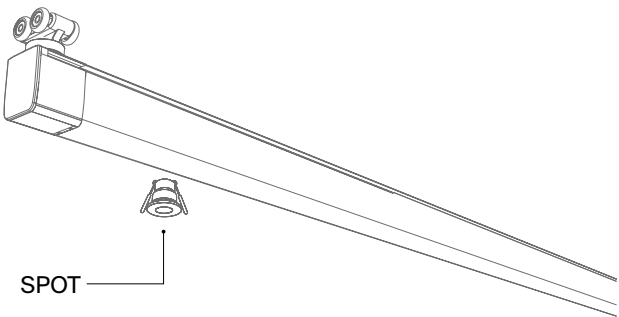
EMITTER DOOYA 15 channels

TECHNICAL SPECIFICATIONS	
Power supply	3V
Lithium battery	CR2430
Battery lifespan	>2 years
Protection rating	IP20
Dimensions	130 x 44 x 10 mm
Operating temperature	-10°C~50 °C
Transmission power	10 mW
Radio frequency	433.92 MHz ± 100KHz
Operating range	35 m

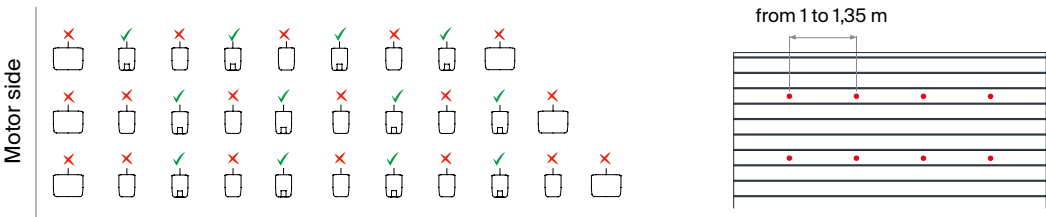


LIGHTING

FABRIC CARRYING CROSSBAR LIGHTING



STANDARD DISTRIBUTION: EVERY 2 FABRIC CARRYING CROSSBAR



SPOT LIGHT CHARACTERISTICS

Optional for crossbars lighting (ON / OFF only)

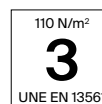
TECHNICAL SPECIFICATIONS	
Colour	Warm white
Colour temperature	3000 K
Beam angle	120°
Consumption	4,5 W/spot
Voltage	24V DC
Luminous flux	280-300 Lm
Protection rating	IP65
Dimensions	Ø36 mm
Recessed hole	Ø22 mm
Material	Aluminium



!

WARNING:
SWITCH OFF THE LIGHTING WHILE
THE CANOPY IS MOVING

WIND RESISTANCE 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/m²	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

CLASS ACCORDING TO STANDARD 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
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 remain retracted.

CLASSIFICATION ACCORDING TO MOTOR DURABILITY

CLASS	NUMBER OF CYCLES DEPLOYMENT / RETRACTION
1	3000

CLASS ACCORDING TO STANDARD UNE EN 13561:2015

RESISTANCE TO WATER POOLING

CLASS	RESITANCE
1	17 L/m² per hour

CLASS ACCORDING TO STANDARD UNE EN 1933



WARNING: Retract the cover in winds above 49 km/h.



WARNING: Retract the cover in rainfall above 40 l/m²/h.

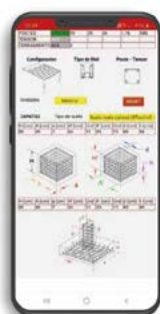


WARNING: Operation in icy conditions may damage the cover.

FOUNDATION CALCULATION

With our Toscana Structure APP, we can design and calculate the ideal pergola in just minutes, incorporating the wind and snow loads required by the client. It will also automatically indicate the technical specifications of the reinforced concrete base needed to secure the pillars to the ground.

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



We believe in the *elegance* of engineering.