



1-AXIS POLAR

The largest solar tracker available on the market, up to 114.4 kWp



THE LARGEST SOLAR TRACKER ON THE MARKET: up to 114.4 kWp

With a single controller and motor. Modular and scalable, it comes in units of up to 2.6 kWp and 44 units.

MS-1EP POLAR TRACKER

This tracker designed by Mecasolar is a **single-axis, polar aligned tracker made of modules that can be easily installed.**

The tracker consists of a series of tilted axes on a north-south line on which the PV panels rotate. All the axes are connected by means of a transmission bar moving an area of up to 730 sq m (7,855 square feet), 114.4 kWp max.) with a single motor.

Sun tracking is astronomically controlled. Backtracking can be used as well, which allows higher energy production and increased PR in the installation.

COMPETITIVE ADVANTAGES

This type of tracking generates 30% more energy than systems fixed to the ground.

- **EASY ASSEMBLY OF MODULES**

Thanks to its long experience in the PV industry, Mecasolar has designed a modular structure that can be easily assembled saving time in the installation of PV solar farms.

- **EASY TRANSPORT**

Mecasolar solar trackers are made of pieces that allow easy transport and installation on the ground, which in turn facilitates marketing.

- **ROBUST STRUCTURE**

Robust structure made from hot-dip galvanised steel that provides corrosion protection and durability.

- **DIVERSE FOUNDATIONS**

The design of the structure allows for the use of different ground foundation systems with or without concrete via foundation screws. The screw system (Mecascrew or similar) reduces assembly time and ground preparation time too. Land levelling, which is not permitted by environmental authorities in certain locations, is not required, which reduces work costs and avoids affecting the land.

- **ADJUSTABLE TO DIFFERENT PV PANEL TYPES**

The simple, modular design of the axes (up to 10 modules per axis, 44 axis x 10 modules = 440 modules) makes it possible to adapt the different PV modules available on the market.

- **LOW MAINTENANCE AND CONSUMPTION**

This system requires low maintenance and involves reduced consumption, which lowers costs and avoids production halts. Up to 114.4 kWp can be driven by a single motor, thus leading to low energy consumption.

- **WIND PROTECTION**

Active wind protection system including anemometer and vane to determine safest position.



TECHNICAL SPECIFICATIONS

Type of tracking system	Single-axis, polar aligned, with or without backtracking
Max. peak power	114.4 kWp per tracker, and 2.6 kWp per axis with 290 Wp modules
kWp per axis	2.6 (depending on power of PV module)
Tilt angle	20-25-30° (varying with project and customer's needs)
Control type	PLC programming with optional backtracking and wind protection system
Movement sensor	Inclinometer
Rotation angles	+45° to -45°
Rotating system	Electromechanical
Transmission mechanism	Linear, it can drive up to 44 axes.
Maximum module area	730 sq m (7,855 sq ft), depending on PV module area
Structure material	Hot-dip galvanised steel under ISO 1461 standards
Size: Length x Width x Height	9 x 2.5 x 4.5 m (29.5 x 8.2 x 14.7 ft) Max. height varies with tilt position
Max. module weight	10,500 kg (23,148 lb)
Max. wind speed	140 km/h (87 mph) in 3-sec gusts
Weight (tracker)	11,000 kg (24,251 lb)
Height over the ground (D) lower end of modules	0.3 m (1 ft) (varying with depth of screw and relief features of the area)
Fixing	Mecascrew or similar foundation screw or foundation footings
Warranty	2 years (extended warranty available)
Compliance with standards	Eurocodes: Directive on Machinery 2006/42/EC, Low Voltage Directive 2006/95/EC, Electromagnetic compatibility Directive 2004/1108/EC, ISO 14121-1:2008, ISO 12100-1:2004, ISO 12100-1:2004

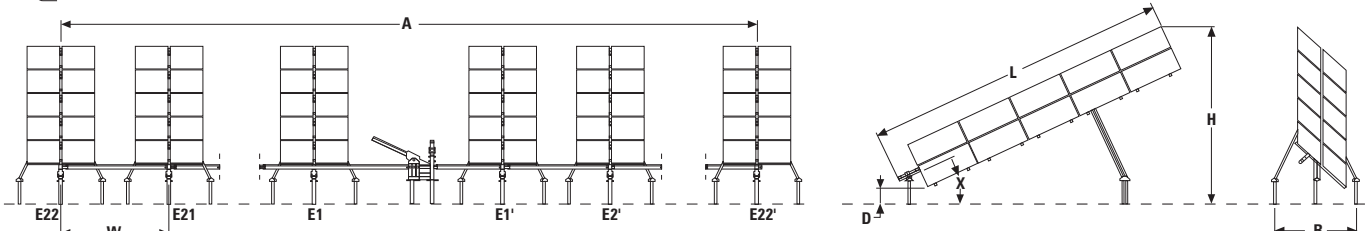
DIMENSIONS

W Varies with each project
(Min. dimension 3.5 m or 11.5 ft)
X 20° - 25° - 30°
L 9 m (29.5 ft)

H 20° 3.1 m (10 ft)
25° 3.8 m (12.5 ft)
30° 4,5 m (14.7 ft)

A 150 m to 215 m (490 to 700 ft)
B 2.5 m (8.2 ft)
D 0.3 m (1 ft) (Min. distance)

Max. number of axes
2 x 22 = 44



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