



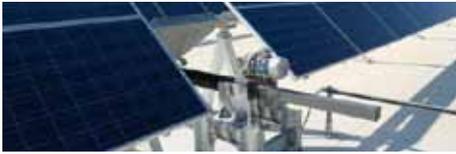
High Tech Solar Trackers

1 HORIZONTAL AXIS

Up to 30% more power
compared to similar investments in fixed structure installations.



The 140kWp HORIZONTAL TRACKER is EASIER and FASTER to install than FIXED structures.



Up to twelve 11.6kWp axes, 48 modules each.

Up to 960 m² moved by a single motor.

MS-1EH HORIZONTAL TRACKER

The horizontal tracker designed by **mecasolar** is a **horizontal single-axis tracker so easy and fast to install that it is a better choice than fixed structures.**

The tracker's cost-effectiveness, the fact that it is easy and fast to install and its 30% higher output compared to fixed installations turn the MS-1EH into the **MOST COMPETITIVE TRACKER ON THE MARKET.**

Apart from all this, **mecasolar's** production capacity at the international level and its broad experience in the development of tracking system technologies, with over 400 MW around the world, make this firm the most profitable - and the wisest choice.

The MS-1EH tracker has up to **12 axes, 11.6kW** each, moved by a single motor. Each axis can carry **up to 48 modules**. In total, **140 kWp**.

COMPETITIVE ADVANTAGES

This type of tracking system can increase power output by 30% compared to ground-mounted fixed structure systems, depending on the latitude of the location.

SIMPLE MODULAR ASSEMBLY

The design of a modular, low height structure results in simple assembly that **does not require cranes or lifting equipment**, which saves time in the installation of the solar PV system.

NO WELDING REQUIRED AT THE LOCATION

The system requires no welding at the location: all the parts can be assembled using fastening devices, thus reducing costs and assembly times.

EASY, OPTIMAL LOGISTICS

The parts are assembled on location, which means they are **easily delivered in standard containers.**

ROBUST, DURABLE STRUCTURE

The **hot-dip galvanised steel and the Dacromet fasteners** ensure excellent performance in aggressive environments.

DIFFERENT FOUNDATION SYSTEMS

The tracker can be used with a **variety of foundation systems, with or without concrete.** The tracker makes it **possible to use foundation screws** like the Mecascrow, which **saves time in assembly and in ground preparation too.**

UNIVERSAL AND ADAPTABLE

The simple modular design of the axes allows for perfect **adaptability to different types of ground and dimensions** (including uneven ground) **and to the different PV modules** available on the market.

LOW MAINTENANCE AND REDUCED CONSUMPTION

Since the system requires **almost no maintenance**, both maintenance costs and production interruptions are reduced. Cleaning the PV modules is **an easy task because the tracker is not tall.**

LOW ENVIRONMENTAL IMPACT and LITTLE CONSTRUCTION WORK

Its **low height** means lower environmental impact. **Given the reduced dimension of the pillar or column section**, it requires **little construction work.** Land levelling, which is not permitted by environmental authorities in certain locations, is not required, which reduces work costs and avoids affecting the land.

HIGH PRECISION

With a **low number of mobile parts and the solar tracker software**, the system tracks the sun with high precision.



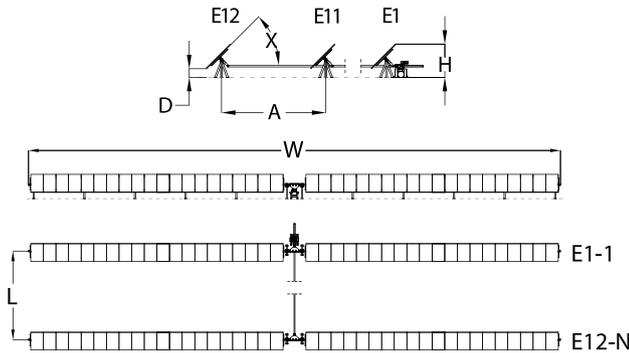
NO WELDING: Fasteners used to assemble mounts, beams and rail



LOW CONSUMPTION (1 motor = 960 m²)
1 linear transmission mechanism =
165kWh/year

NO CONSTRUCTION WORK
Option: MECASCREW foundation

DIMENSIONS



	MODEL MS-1EH						
	HAA	HAB	HAC	HAD	HAE	HBB	HBC
(N) No. AXES	11	11	12	12	12	12	12
No. MODULES	40	44	40	48	44	40	36
TYPE MODULES	60 cells (240 Wp)	72 cells (290Wp)	72 cells (290 Wp)				
W (m/ft)	35/115	38/125	35/115	42/138	38/125	42/138	38/125
X (m/ft)	±45°	±45°	±45°	±45°	±45°	±45°	±45°
L (m/ft)	60/197	60/197	66/217	66/217	66/217	66/217	66/217
A (m/ft)	max 6/19.7	max 6/19.7	max 6/19.7				
H (m/ft)	2/6	2/6	2/6	2/6	2/6	2/6	2/6
D (m/ft)	min 0.5 / 1.64	min 0.5 / 1.64	min 0.5 / 1.64				

TECHNICAL SPECIFICATIONS

Type of tracking system	HORIZONTAL single-axis tracker with or without backtracking
Peak power	105.6 kWp to 139.2 kWp (modular system)
Max. No. axes	12
kWp per axis	9.6 to 11.6 (depending on power and number of modules)
No. modules per axis	36 to 48
Control type	PLC programming with optional backtracking and wind protection system
Movement sensor	Inclinometer
Fixed zenith angle tilt of modules	Standard: 0°
Rotation angles	+45° to -45°
Rotating system	Electromechanical
Transmission mechanism	Linear, driving up to 12 axes
Motor power	2.2 kW (estimated power consumption 165 kWh/year)
Input voltage at control board	Single phase 230V
Part assembly and work on location	No welding required on location. Parts are assembled with fastening devices.
Module area	726 m ² (7,815 ft ²) to 960 m ² (10,334 ft ²)
Structure material	Hot-dip galvanised steel under ISO 1461 standard or A123/A123M standard Fastening materials made of class 8.8 steel with Dacromet 500 Grade B treatment
Dimensions: length x width x height	From 60m x 35m x 2m (197 ft x 115 ft x 6 ft) to 66m x 42m x 2m (217 ft x 138 ft x 6 ft) height at 45°
Max. distance between axes	6m (19.7ft)
Max. load	From 12,320 kg (27,161 lb). Up to 16,128 kg (35,560 lb), with 28 kg (61.73 lb) modules
Weight without modules	From 8,895 kg (19,600 lb) to 11,120 kg (24,520 lb), depending on number of axes without load.
Height above the ground (lowest part of modules at 45°)	0.5 m (1.64 ft) It varies with depth of screw and relief features of the area.
Fixing	Options: MECASCREW or similar foundation screws; micropiles; concrete footing in situ or precast
Warranty	2 years (extended warranty available)
Compliance with standards	Electricity: Machinery Directive 2006/42/EC, Low Voltage Directive 2006/95/EC, Electromagnetic Compatibility Directive 2004/108/EC, UL-508A Structure: Eurocode; ASCE 7-05, LRFD Manual, 13th edition; CFE-2008 (wind, seismic hazard); AS/NZS, IS, SANS



HEADQUARTERS

Pol. Ind. Santos Justo y Pastor, s/n,
31510 Fustiñana, Navarra
ESPAÑA
Tfno.: (+34) 902 107 049
(+34) 948 840 993
Fax: (+34) 902 108 402
(+34) 948 840 702
mecasolar@mecasolar.com
italia@mecasolar.com

GRECIA

Κρήτης 90, περιοχή Βούλγαρη,
Θεσσαλονίκη,
TK 54655
GRECIA
Tfno.: (+30) 2310 799 209
Fax: (+30) 2310 570 597
hellas@mecasolar.com

INDIA

Ground floor, Ismail Building,
D. N. Road
Flora Fountain,
Mumbai - 400001
INDIA
Tfno.: (+91) 022 - 4348 4019
Fax: (+91) 022 - 4348 4001
india@mecasolar.com

USA - CANADA

3410 Industrial BLVD, Suite 102
West Sacramento, 95691 CA
USA
Tfno.: (+1) 916 374 8722
Fax: (+1) 916 374 8063
usa@mecasolar.com
canada@mecasolar.com