

APLICACIONES DE ENERGÍAS SUSTITUTIVAS S.L. 🔵

Zaragoza

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## 265 m<sup>2</sup> Double Axis Solar Tracker Model: V10-24 M EXP





## A RANGE OF COMPETITIVE ADVANTAGES

Our objective is to guarantee you the highest levels of freedom and flexibility when designing your solar project, increasing its production with the highest levels of technological speed and simplicity.

Structural Advantages	Other Advantages			
<ul> <li>Low height and minimum visual impact tracker:</li> <li>Reduction of the number of trackers for the same level of power.</li> <li>Optimisation of occupied space by increasing the power density of the park.</li> <li>Infrastructure savings: brackets, cables, foundations</li> <li>Increased reliability and robustness of the control system compared to other smaller-sized solutions.</li> <li>Rapid assembly and start-up by reducing the number of machines to install.</li> <li>Important reduction of the whole life maintenance cost of your solar park, regarding to other solutions based on smaller trackers.</li> </ul>	<ul> <li>Astronomical tracking system for increased focus precision.</li> <li>Minimum consumption per machine.</li> <li>Independence of tracking movement, free from grid tension variations : 2 days autonomy provided by a battery inside of the tracker.</li> <li>Orientation system through disc and hydraulic tractor clamp.</li> <li>Available monitoring of tracking movement.</li> </ul>			
Design Advantages				
<ul> <li>Arrangement of module rows at different levels and on two slopes: <ul> <li>Improved ventilation for the modules, which increases their efficiency and useful life.</li> <li>Possibility of adapting any module (standard design for pannels maximum lenght up to 1700 mm). Other lenghts please contact ADES.</li> <li>Perfect stability of the assembly and improved coefficient of wind resistance for the machine, due to the 'steps' design of our pannels structure.</li> </ul> </li> <li>Self-ventilated arms: <ul> <li>Elements with airways that enable the heat generated to be dissipated over the parts of the machine</li> </ul> </li> </ul>				
EFFECT OF THE TRACKER ON THE EFFICIENCY OF THE INVERTER Solar tracker has a positive impact on the total gain of the whole system, making the inverter to work as much time as possible at a better level of performance.				
2 year sugrentes in compensate and werks				

## 2 year guarantee in components and works.

We also offer a training service for your staff regarding maintenance of the machines. Ask us for more information.



Physical Characteristics			
Configuration (rows - length)	6-7 rows – 24 m		
Area (varies according to the module)	Up to 265 m <sup>2</sup>		
Adjustable inclination angle	From 5° to 50°		
Azimuthal sweep	250°		
Type of tracking	Azimuthal	Automatic. Precision ± 3°	
	Inclination second axis	Automatic. Hydraulic cylinders controlled by control room.	
Anual energy consumption	Around 160 kWh/year		
Working temperature range	-10°C / +50°C		

Mechanical Characteristics	
Resistance to wind	Structure designed to resist up to 160 km/h in safety position
Weight of the structure without modules	8500 kg
Traction system	Hydraulic tractor clamp
Size of foundations	Deep foundation :8-10 m <sup>3</sup> (depending in base of the k parameter of the terrain) Pad foundation : 23.7 m <sup>3</sup> (for $\sigma$ >2kg/cm <sup>2</sup> )

## System Safety Devices: our primary obligation

Guaranteed sliding movement without structural damage under strong winds. Reduction of the strenghts on the machine under windy circumstances.

Gusts of wind	Each tracker has a digital input for the alarm signal for automatic positioning in safety position.		
12450	In horizontal position	Automatic positioning in safety position under winds over 50 km/h	
		Automatic at the end of the day (Night protection position)	
	Under worst weather conditions (wind from back of machine), and failure of park security systems, the structure supports up to 108 km/h. (norm NBE AE 88)		

ADES trackers bear the CE mark and fully comply with the following European directives: Machine construction directive 98/37 CE · Regulation 73/23 CE regarding Low Voltage · Electromagnetic Compatibility in accordance with 89/333 CEE.- Wind loads in accordance to NBE-AE-88 -Metalic structure in accordance to Norm NBE-EA95

DESIGN UNDER PATENT P200402167