



OREMECH
ENERGY, NATURALLY.

Single Axis Tracking (SAT 46)

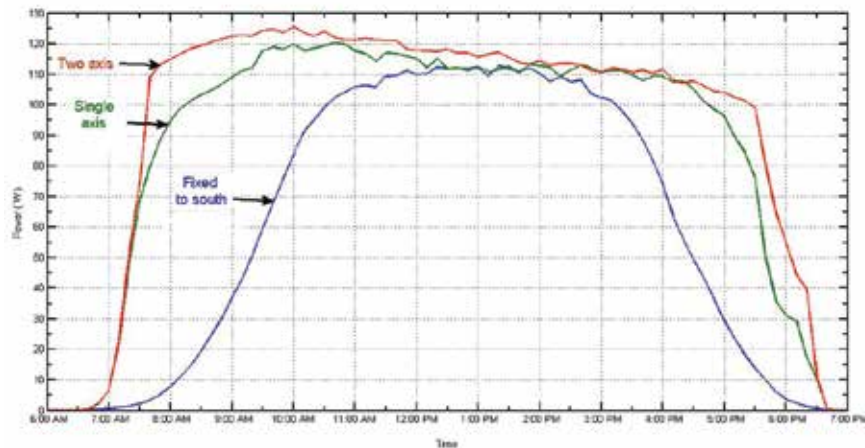
ADVANTAGES

- 1) Higher energy output with same amount of PV panels
- 2) Reliable, robust and Innovative, highly efficient control system
- 3) Fast and simple installation and easy handling
- 4) Single group control
- 5) Safe with Wind sensor and settable upto 1000km/hr. In storm conditions Omnipotent Tracker is placed automatically in security position.
- 6) Based on industry-proven technology
- 7) Quick after sale service by highly qualified engineering service team
- 8) Economical – value for money

Single Axis Tracking

The challenge: Solar power plants need to have their photovoltaic panels aligned perpendicular or at a certain angle to the sun to get highest possible yield of energy. Panel alignment maximizes energy yields up to 30–40 percent in cell-based photovoltaics (PV). However, the sun's position in the sky is constantly changing.

Omnipotent Solution: After constant R & D to achieve the above, we have developed an innovative and highly efficient single-axis tracking control system which can control the azimuthal movements of PV, constantly correcting their position and pointing them directly towards the sun, with a tracking control system that contributes to a considerable increase of electricity generation.



Type of tracking system	Horizontal single-axis tracker with or without backtracking
Nominal output (depending on module)	11500 – 14260Wp DC
Max. No. rows	1
kWp per row	Up to 14.26 kWp (depending on power and number of modules)
Manual override	Manual mode provided for manually adjusting the actuator during installation
Control Panel	Closed loop using signal from inclino meter for angle feed back
Movement sensor	Inclinometer
Fixed zenith angle tilt of modules	Standard: 0°
Rotation angles	+45° to -45°
Rotating system	Electromechanical
Transmission mechanism	Linear Actuator
Motor power	50 W – 240 W
Internal Consumption	15KWH per Year
Input voltage at control board	24 V DC
Part assembly and work on location	No welding required on location. Parts are assembled with fastening devices.
Module area	92 m ²
Max. module surface (W x H)	23 m x 3.9 m
Structure material	Hot-dip galvanised steel under ISO 1461 standard or A123/ A123M standard Fastening materials made of class 8.8 steel
OPTIONAL SERVICES	Extended warranty, on-site service, trainings.