

Horizontal Single-axis Tracking System MS-PV-SHT120/140



Tracker Profile:

The axis of rotation for horizontal single axis tracker is horizontal with respect to the ground. The posts at either end of the axis of rotation of a horizontal single axis tracker can be shared between trackers to lower the installation cost. Field layouts with horizontal single axis trackers are very flexible. The simple geometry means that keeping all of the axes of rotation parallel to one another is all that is required for appropriately positioning the trackers with respect to one another. Appropriate spacing can maximize the ratio of energy production to cost, this being dependent upon local terrain and shading conditions and the time-of-day value of the energy produced. Backtracking is one means of computing the disposition of panels. Horizontal trackers typically have the face of the module oriented parallel to the axis of rotation. As a module tracks, it sweeps a cylinder that is rotationally symmetric around the axis of rotation. In single axis horizontal trackers, a long horizontal tube is supported on bearings mounted upon pylons or frames. The axis of the tube is on a north-south line. Panels are mounted upon the tube, and the tube will rotate on its axis to track the apparent motion of the sun through the day.

Horizontal single axis trackers are typically used for large distributed generation projects and utility scale projects. The combination of energy improvement and lower product cost and lower installation complexity results in compelling economics in large deployments. In addition the strong afternoon performance is particularly desirable for large grid-tied photovoltaic systems so that production will match the peak demand time. Horizontal single axis trackers also add a substantial amount of productivity during the spring and summer seasons when the sun is high in the sky. The inherent robustness of their supporting structure and the simplicity of the mechanism also result in high reliability which keeps maintenance costs low. Since the panels are horizontal, they can be compactly placed on the axle tube without danger of self-shading and are also readily accessible for cleaning.



Product Characteristics:

Single Axis Horizontal Tracker

MS-PV-SHT

Model	MS-PV-SHT120	MS-PV-SHT140
Array:		
Modules Assembly Area	120 m ²	140 m ²
Modules Assembly Arrangement	72 Modules	72 Modules
Modules Reference	260W-1650*991*40mm	315W-1956*991*40mm
Power Generation Capacity	18.72KW	22.68KW

Tracking

Tracking Accuracy	≤1°
Tracking Angle Range	±45°
Tracking Principle	Algorithm + Inclinometer

Structure

Material	Hot Galvanized Steel
Electronic Control Cabinet	IP65,Weather Proof, Junction Connected
Max. Operating Wind Load	22m/s
Max. Wind Load at Stow Position	34m/s
Working Temperature	-40°C-60°C
System Life	≥25years

Motor

Motor Power	60w
Average Annual Power Consumption	≤26.5kWh
Controller Power Input	AC110V/AC220V

Certifications and Warranties

Certifications	CE,ISO-9001 Material Parts: 10years
Warranty	Electronic Part: 5years (Long Warranty can be purchased)

System Characteristics

- Automatic Tracking
- Independent Reset
- Manual Control
- Backtracking
- Wind Speed Test
- Night Reposition Function