

GS-Light Intelligent Tracking System Solution

Intelligent Tracking System (Multipoint Drive) - 2P



● System Introduction

Self-developed unique and highly reliable multi-point transmission tracking structure system, large torque tube, structure rigidity increased by 20%, can resist greater wind resistance, each row of trackers has 2 or more drivers, which is more improved accurate tracking accuracy and structural reliability, using the most advanced wind tunnel design, can adapt to multi-angle protection strategies, specifically designed for 182mm and 210mm large silicon high-power components.

● Suitable Power Plant Project

It is suitable for various power plant projects, especially in power plants with double-sided modules or high civil construction costs.

● Features

- 3 single-row drive devices, can improve the structural rigidity of the system and the system has stronger wind resistance;
- Adopt advanced AI intelligence and double-sided tracking algorithm, higher power generation;
- The column span is larger, the number of installed machines is less, and the construction cost is greatly reduced;
- Forward-looking design, applicable to 182mm and 210mm large silicon wafer high-power components, with a maximum of 120 components;
- Differentiated column design, different pile foundations can be selected according to different geological conditions, the slope of 15% in the north and south can be realized, and the slope in the east-west direction is unlimited;
- The system has passed third-party testing and certification such as wind tunnel and TUV to ensure stable operation of the system for 25 years;
- It can be matched with AC or PV power supply to improve the stability of wireless transmission, take into account the laying of string and tracking cables, and greatly reduce the cost per kilowatt-hour (LCOE) of the power station.

● Technical Information

Mechanical Aspect

Number of tracker drive modules	2X60
Number of motors per tracker	1
Tracking range	±60°
Material	Hot-dip galvanized steel + aluminum-magnesium-zinc plate + pre-galvanized
East-west land slope	< 15°
North-south land slope	Unlimited
Module arrangement	Double row vertical
Ground clearance	> 500mm, (customizable)
Foundation form	Static pressure pile, cement precast pile, concrete foundation
Standard wind speed	< 47m/s, 3 seconds gust, (customizable)
Protection wind speed	18m/s
Mechanical tracking accuracy	±2°
Land occupation rate	30%
Grounding method	Self-grounding

Electrical Aspect

Drive way	Linear actuator drive
Motor Power	220W
Flat time	< 8minutes
Controller	MCU
Control tracking accuracy	< 2°
Control mode	Independent GPS time control + tilt sensor hybrid control
Limit protection	Mechanical limit + motor hard limit + soft limit
Motor protection	Overheat protection, overcurrent protection, self-locking protection
Operating temperature	-40-+70°C
Protection level	IP65
Power consumption	< 0.1kWh/day
Power supply	String power supply/external power supply
Communication method	RS485 Modbus agreement
Signal transmission method	Wired/wireless optional