



## GS-Light Intelligent Tracking System Solution

### INTELLIGENT TRACKING SYSTEM

#### ● System Introduction

The photovoltaic tracking system independently developed by Grace Solar is unique and highly reliable. The system integrates new-generation information technologies such as AI, Internet of Things, energy storage, energy Internet, and intelligent manufacturing. Using the most advanced wind tunnel design, it can adapt to multi-tilt protection strategies, with astronomical tracking algorithm, shadow-avoid tracking mode, strong wind protection system, lightning protection design, anti-torsional stability system, wireless remote control and other functions to ensure safety. Under the premise of balance, the conversion efficiency of solar modules can be improved.



Multipoint Drive-2P



Independent Single Row-1P



Double Row Linkage

#### ● Features



Two artificial intelligence

**600W+**

600W+  
Module

**AI**

AI control

**2.5m**

Match module  
length up to 2.5m



Reliable and safe  
communication

**LCOE**

Reducing LCOE  
cost



Extreme Weather  
protection

**20%**

Slope can be  
adapted to 20%



Wind Tunnel  
Test Report

**25%**

Improving the  
efficiency by 15-25%

#### ● Suitable Power Plant Project

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



Complex Terrain



Farmers Light  
Complementary



Fishing Light  
Complementary



Large Flat Ground  
Power Plant



Typhoon And  
Highly Corrosive

#### ● Technical Information

##### Mechanical Aspect

Number of tracker drive modules	2X60
Number of motors per tracker	3-5
Tracking range	±50°(Customizable)
Material	Hot-dip galvanized steel + aluminum-magnesium-zinc plate + pre-galvanized
East-west land slope	Unlimited
North-south land slope	<15%
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	<0.04kWh/day
Power supply	String power supply/external power supply
Communication method	LoRa/Zigbee wireless communication or RS485
Signal transmission method	Wired/wireless optional