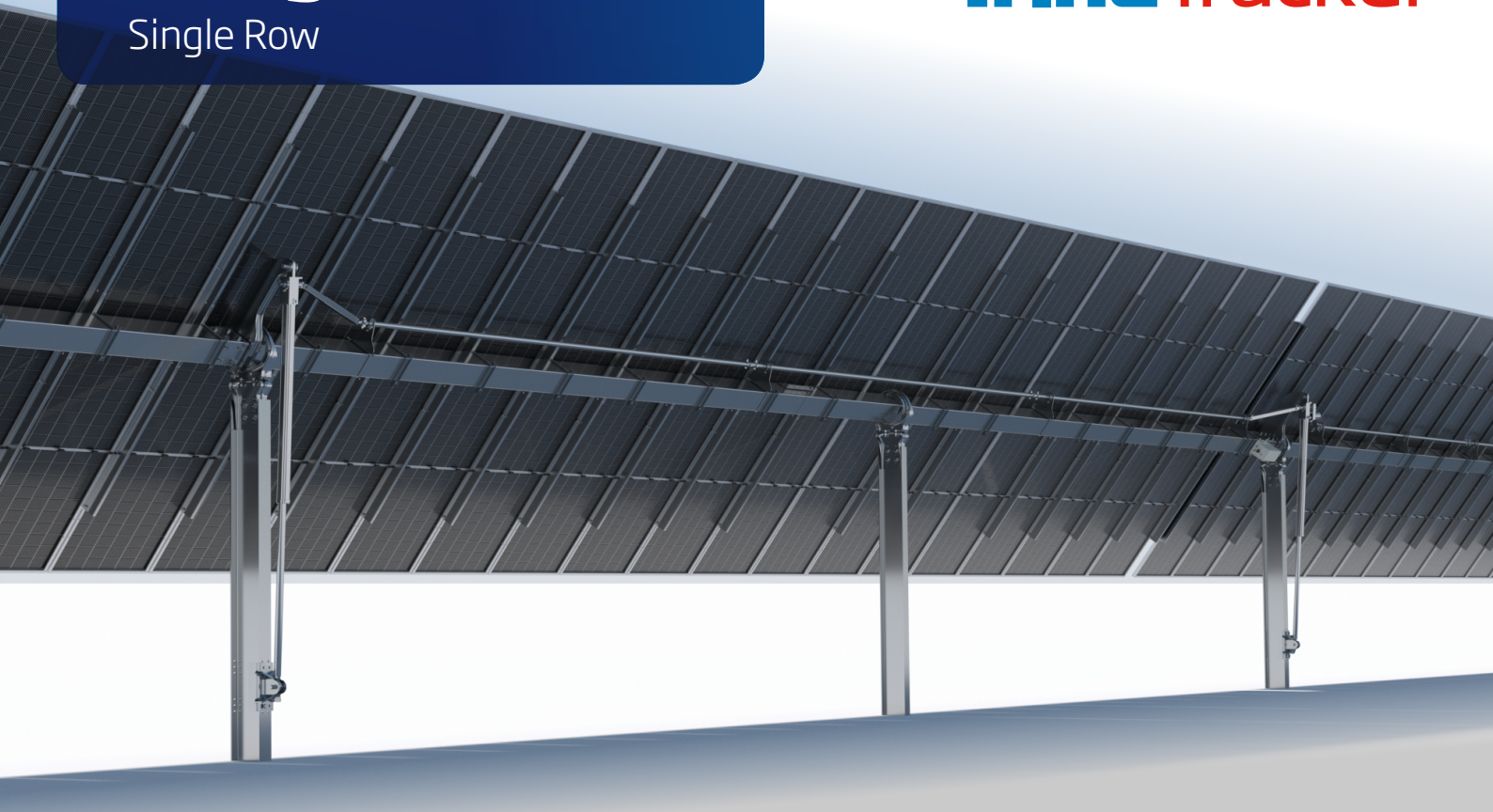


# Vanguard™ 2P

Single Row

TrinaTracker



## Revolutionized Multi-Drive System

- › One main motorized actuator and two secondary non-motorized actuators are the self-locking solution that allows effective wind mitigation and high adaptability.
- › 7 highly robust posts per tracker.



Tracker  
**stability  
guarantee**



Improved  
**Reliability**

## Advanced Alarms Management

- › Maximum energy gain ensuring trackers and PV modules safety.
- › Minimum tracker consumption.
- › Preservation of the TCU battery life.

## Innovative **SuperTrack**

- › Real-time weather parameters.
- › Considers terrain conditions.
- › Dynamically optimizes tracking angles.
- › Reduces shading loss.



Up to  
**8%**  
yield gain

## More Modules per Tracker

- › Compatible with ultra-high power modules.



**120**  
modules per  
tracker

## Efficiency Proved

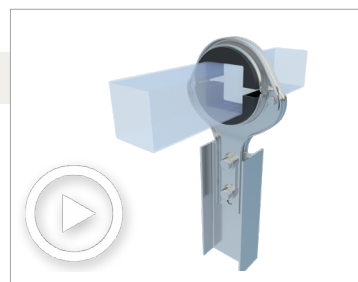
- › Ultra-low power operation driven by a single row control that reduces power consumption.
- › Mechanical and electric protections ensure the right performance of the tracker.



**Wired and  
wireless**  
communication  
system

## TrinaTracker patented **Spherical Bearing**

- › No maintenance required.
- › Adaptation to uneven foundation settlements.
- › Releases extra stress caused by tracker deformation.
- › Reduction of **BOCs** cost.



## Wind Tunnel Test by **RWDI**

- › Stability in extreme weather conditions.
- › Static, dynamic and aeroelastic tests throughout full wind tunnel tests (pressure model, 2D sectional model test & full aeroelastic model test).



# Vanguard™ 2P

## Technical Specifications

### GENERAL FEATURES

Solar tracker type	Single row single-axis
Solar module supported	Bifacial and monofacial (framed or frameless)
Tracking range	±55° (110°)
Driver	Multiple linear actuator
Configuration	Two modules in portrait (2P) up to 4 strings per tracker (1500V string)
Solar tracker type	Framed
Foundation options	Direct ramming / Pre-drilling + ramming / Micropile / PHC piles
Pile section	W, compatible with IPE, IPEA
Modules attachment	Bolts, rivets and clips
Piles per MW (550Wp module)	~106 piles/MW <sup>(1)</sup> (120 modules per row)
(670 Wp module)	~102 piles/MW <sup>(1)</sup> (102 modules per row)
Terrain adaptability	15% N-S <sup>(2)</sup>
Wind and snow loads tolerance	Tailored to site requirements
Rear shading factor	0.8%

### STRUCTURE

Material	High yield strength steel
Coating	HDG, pregalvanized & ZM <sup>(3)</sup>

### ELECTRONIC CONTROLLER SPECIFICATIONS

Controller	Electronic board with microprocessor
Ingress protection marking	IP65
Tracking method	Astronomical algorithms + SuperTrack technology <sup>(4)</sup>
Advanced wind control	Customizable
Anemometer	Cup / Ultrasonic
Night-time stow	Configurable
Communication with the tracker	Wired option: RS 485 Wireless option: LoRa/Zigbee
Operating conditions	Altitude < 4000 m <sup>(5)</sup> Temperature: -30°C to 60°C <sup>(5)</sup>
Sensors	Digital inclinometer
Power (motor drive)	DC motor: 0.2kW
Power supply	Grid connection / String powered / Self-powered with battery

### WARRANTY

Structure	10 years
Driver and control components	5 years

(1) Depending on layout

(2) For scenarios beyond the scope of use, please consult **TrinaTracker**

(3) Standard configuration. Other coating under request

(4) Includes smart tracking algorithm and smart backtracking algorithm

(5) Standard configuration. Different conditions under request, refer to **TrinaTracker**

## About TrinaTracker

### ✓ Excellent Bankability

**Trina Solar** has been ranked within the 10 "Top Bankable Module Supplier" list released by Bloomberg New Energy Finance (BNF) for five consecutive years.

### ✓ Multiple Product Lines for all Applications

Multiple product lines developed by an experienced international R&D team to meet market application demands.

### ✓ Superior Reliability and High Quality

Quality management and control system leader in the solar industry with more than 20 years of experience.

### ✓ Engineering Design Expertise

Systematic pre-sales to guarantee prompt engineering design.

### ✓ One-Stop Service

Complete value chain analysis to ensure your investment. An experienced KAM manages and optimizes the project according to your requirements.