

TrinaTracker Vanguard™ -2P

Single-Row/Multidrive System



Compatible with Larger Modules

Compatible with modules up to **670W+**.



More Modules Per Tracker

Up to **4** strings of 1500V system per row.
Up to **120** modules per tracker.



SuperTrack Smart Tracking Control System

Compared with conventional tracking control system, increase energy generation by up to **3-8%**.



Multidrive System

Better wind tolerance, high adaptability and synchronization, greatly improving the stability of the system.



Fewer Piles Per MW

7 piles per row (standard configuration),
up to **45%** fewer piles.

OPTIMIZED BEARING DESIGN

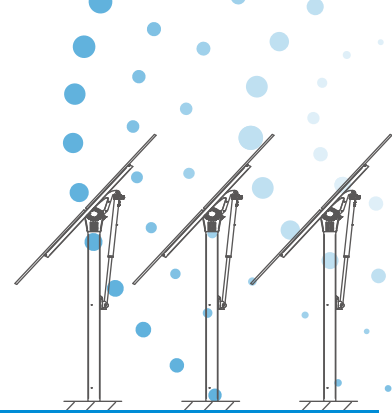
- Global patented spherical bearings, up to 30% angle adjustability.
- Alleviate the damage caused by uneven foundation settlement during operation.
- Release the extra stress caused by the deformation of the tracker system, reduce the load and failure rate of each component



WIND TUNNEL TESTED BY RWDI

Static load + dynamic load dual test 3D flutter stability analysis and shock response Evaluation of precise wind load distribution on tracker system.





TECHNICAL SPECIFICATIONS

GENERAL FEATURES

Solar tracker type	Single row Single-Axis
Tracking range	±55°(110°)
Driver	Multiple linear actuator
Configuration	Two modules in portrait (2P) up to 4 strings per tracker(1500V string)
Solar module supported	Framed
Foundation options	Direct ramming / Pre-drilling+ramming/Micropile / PHC piles
Pile section	W, compatible with IPE, IPEA
Modules attachment	Bolts, Rivets
Piles per MW(670Wp module)	~102 piles/MW ⁽¹⁾ (120 modules per row)
Terrain adaptability	15% N-S ⁽²⁾
Wind and snow loads tolerance	Tailored to site requirement
Rear shading factor	0.8 %
Design wind speed	55 m / s (This value depends on project conditions)

STRUCTURE

Material	High Yield Strength Steel
Coating	HDG, Pregalvanizide & ZM ⁽³⁾

CONTROLLER

Controller	Electronic board with microprocessor
Ingress protection marking	IP65
Tracking method	SuperTrack Smart Tracking Control System ⁽⁴⁾ / Conventional Tracking Control System
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 ⁽⁵⁾ Temperature: -30 ~60 °C ⁽⁵⁾
Sensors	Digital inclinometer
Power(motor drive)	DC motor: 0.2 kW
Power supply	Grid connection / String powered / Self-powered with battery

WARRANTY

Warranty period of 10 years for the structural set of elements which build the tracker up and have been supplied by Trina Solar.

Warranty period of 5 years for commercial components (including but not limited to drive system, electrical system, bearing set, fasteners, etc.)

*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, please consult TrinaTracker

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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