

Vanguard - 2P

Single-Row/Multi-motor System



Compatible with Latest Modules

Compatible with N/P-Type modules up to 700W+.



Multi-motor System

Better synchronization, better installation and O&M efficiency of driving system.



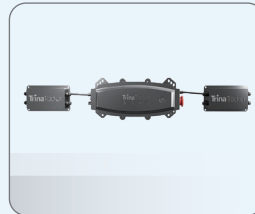
SuperTrack Smart Tracking Algorithm

Compared with the conventional tracking algorithm, increases energy generation by as much as 8 percent.



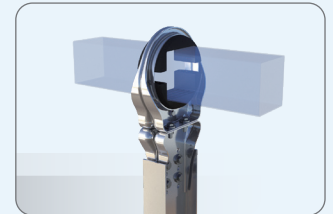
Fewer Piles Per MW

Less pile design for lower BOS in difficult scenarios of piling.



Multi-function modes improve reliability

- Multistage wind speed protection mode
- Load current classification determination
- Heavy snow protection mode



Optimized bearing design

- Global patented spherical bearings allow 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.

Low motor failure rate

- Overcurrent protection reduces excessive motor consumption
- Lower single motor power consumption



Warranty period of 10 years for the structural set of elements which comprises the tracker 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.)

GENERAL FEATURES

Solar tracker type	Single row, single axis
Tracking range	60° (120°)
Driver	Multi-slewing drive
Configuration	Two module 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	~125 piles / MW (4 string module)
Terrain adaptability	15% W-E, 15 % N-S ⁽¹⁾
Wind and snow loads tolerance	Tailored-to-site requirement
GCR	≥25%
Design wind speed	45 m/s (This value depends on project conditions)

STRUCTURE

Material	High Yield Strength Steel
Coating	HDG, Pre-galvanized & ZM ⁽²⁾

CONTROLLER

Controller	Electronic board with microprocessor
Ingress protection marking	IP66
Tracking method	SuperTrack Smart Tracking Algorithm ⁽³⁾ / Conventional Tracking Algorithm
Advanced wind control	Customizable
Anemometer	Cup / Ultrasonic
Night-time stow	Configurable
Communication with the tracker	Wireless option: LoRa / Zigbee
Operating conditions	Altitude < 4000m ⁽⁴⁾ Temperature: -30~60°C ⁽⁴⁾
Sensors	Digital inclinometer
Power consumption	0.2kW·h / Day
Power supplier	String-powered / Self-powered / AC-powered

*1 N-S: max 15%, for slopes higher than 10% consult with TrinaTracker.

E-W: for slopes higher than 10%, consult with TrinaTracker.

*2 Standard configuration. Other coating by request.

*3 Includes smart tracking algorithm and smart backtracking algorithm.

*4 Standard configuration. Different conditions under request, please consult TrinaTracker.

