

Vanguard-1P

SINGLE ROW



Compatible with Latest Modules

Significantly reduce system costs with a 50% lengthier tracker and 700W+ N-type modules. Equipped with the latest smart tracking algorithm and monitoring platform, this upgrade is designed to be compatible with bifacial and ultra-high-power modules, boost system power generation, and optimise O&M efficiency.



Modular Design

Easily adjust the tracker's length to seamlessly adapt to diverse terrains, enabling a flexible arrangement that enhances land utilisation.



Quick Installation Solution

With 30% fewer components and a design that's easy to put together, reduce installation costs by up to 15 percent.



Climate Adaptability

Enhanced with adaptable wind protection strategies and innovative snow and hail protection features, it's designed to boost the efficiency of your modules.



BI-DAMPER SYSTEM

The bi-damper system can shorten the tracker's oscillation time, thus preventing oscillation. Dynamic responses are reduced, and the critical wind speed increased.



SPHERICAL BEARING

Global patented spherical bearings with up to 30% angle adjustability alleviate the damage caused by uneven foundation settlement during operations. The spherical bearings dissipate the extra stress caused by the deformation of the tracker system, thus reducing the load and failure rate of each component.



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	1 module in portrait (1P) 3-4 string big format module (1500V string) ⁽¹⁾
Solar module supported	Framed
Foundation options	Direct ramming / Pre-drilling + ramming / Micropile / PHC piles
Pile section	W type, C type
Modules attachment	Bolts, Rivets
Piles per MW	~239 piles/MW (4-string module)
Terrain adaptability	20% W-E, 15 % N-S ⁽²⁾
Wind and snow loads tolerance	Tailored to site requirement
GCR	≥25%
Design wind speed	55m/s ⁽³⁾

STRUCTURE

Material	High yield strength steel
Coating	HDG, pre-galvanized & ZM ⁽⁴⁾

CONTROLLER

Controller	Electronic board with microprocessor
Ingress protection marking	IP65
Tracking method	SuperTrack Smart Tracking Algorithm ⁽⁵⁾ / 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 ⁽²⁾ Temperature: 30~60°C ⁽²⁾
Sensors	Digital inclinometer
Motor power	DC: 0.15kW
Power supplier	String-powered / Self-powered / AC-powered

*1 TrinaTracker adapts to various types of modules.

*2 For scenarios that are out of scope, consult TrinaTracker.

*3 The wind speed is based on ASCE 7-16. If the wind speed is out of scope, please consult TrinaTracker.

*4 This is standard configuration and the coating can be customized according to needs.

*5 Includes smart tracking algorithm and smart backtracking algorithm.

