

TrinaTracker Vanguard™ -1P

Single-Row



Compatible with Larger Modules

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



Higher Stability

Bi-damper system improves the tracking system's resistance to wind by **20%**.



Higher Reliability

Optimized torque tube improves the torsional resistance by **29.6%** and the bending resistance by **12.4%**.



Quick Installation Design

Trina Clamp is a proprietary product that is quick and easy to use with the 1P configuration, reducing the installation time and costs.



SuperTrack Smart Tracking Control System

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

BILATERAL DAMPER SYSTEM

The bilateral damper system can shorten the tracker 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 reduce the load and failure rate of each component.





TECHNICAL SPECIFICATIONS

GENERAL FEATURES

Solar tracker type	Single row Single-Axis
Tracking range	±60°(120°)
Driver	Slewing drive
Configuration	One modules in portrait (1P) up to 90 modules 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, HEA and HEB
Modules attachment	Bolts, Rivets and Clamps
Piles per MW(670Wp module)	~242 piles/MW ⁽¹⁾ (68 modules per row)
Terrain adaptability	20% N-S ⁽²⁾
Wind and snow loads tolerance	Tailored to site requiriment
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: 0.15 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, please consult TrinaTracker

*4 Includes smart tracking algorithm and smart backtracking algorithm

*5 Standard configuration. Different conditions under reques, please consult TrinaTracker

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

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Doc number:DT-T-0004 Rev:C

