

TrinaTracker Vanguard™ -1P

Single-Row



Compatible with Latest Modules

Compatible with N/P - Type modules up to **690W**.



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%**.



SuperTrack Smart Tracking Algorithm

Compared with conventional tracking algorithm, increase energy generation by as much as **6%**.

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 93 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
Piles per MW(690Wp module)	~258 piles/MW ⁽¹⁾ (64 modules per row)
Terrain adaptability	15%W-E, 15% N-S ⁽²⁾
Wind and snow loads tolerance	Tailored to site requiriment
GCR	≥25%
Design wind speed	55 m/s (This value depends on project conditions)

STRUCTURE

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

CONTROLLER

Controller	Electronic board with microprocessor
Ingress protection marking	IP65
Tracking method	SuperTrack Smart Tracking Algorithm ⁽⁴⁾ / 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 < 4000 m ⁽⁵⁾ Temperature: -30~60°C ⁽⁵⁾
Sensors	Digital inclinometer
Power(motor drive)	DC motor: 0.15 kW
Power supply	String-powered / Self-powered / AC-powered

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:D

