

SINGLE-AXIS TRACKER

▶ SST SERIES SST-1P

▶ SST SERIES SST-2P

▶ SST SERIES SST-1P-TL

▶ SST SERIES SST-2PM



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SST SERIES SST-1P

ONE PORTRAIT HORIZONTAL SINGLE-AXIS TRACKER

Cost-effective, stable & efficient system

- ▶ Fully fit for 210 module
- ▶ Easy installation & maintenance
- ▶ AI algorithm to maximize power generation
- ▶ Adapt to various terrains allowing a north-south slope up to 20%

Technical Specifications

STRUCTURE	
System type	One portrait horizontal single-axis tracker
PV-Module quantity per row	1P×90
Tracking range	±60°(Customized according to project)
Tracking accuracy	±1°
Motor quantity	1 unit

Wind protection	≥18m/s
Rotate to horizontal time	5-6mins
Overload prevention	Yes

ELECTRICAL	
Tracking method	Astronomical algorithm+closed-loop control (AI)
Signal transmission	Wire RS485 or wireless (LoRa)
Drive method	24V DC Motor + Slew Drive
Power supply	AC-powered or self-powered
Backtracking	Yes

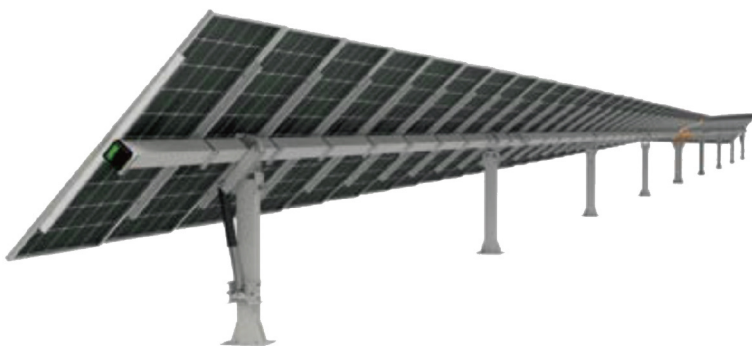
ENVIRONMENT & OTHER	
Operating temperature	-30°C to +60°C
Slope tolerance	North-south 10%~20%, East-west no limits
Load design standard	GB, ASCE, BS EN, AS etc



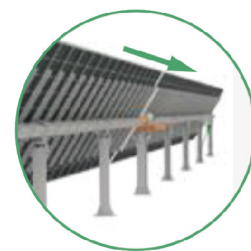
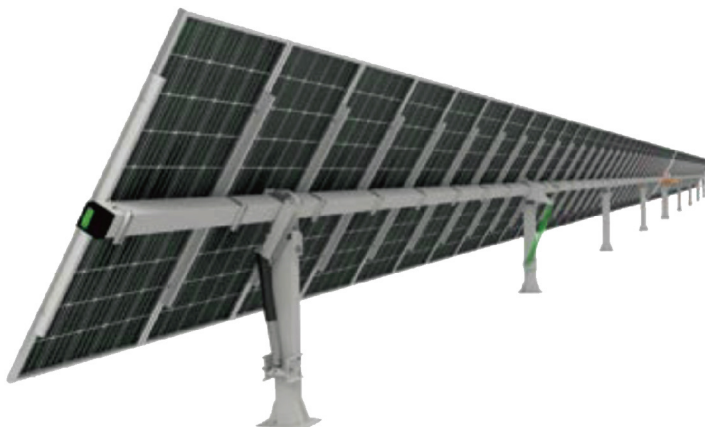
Overcome the Rotating Center of Gravity

Eliminate the angle error at both ends of the bracket, which can increase the power generation of the powerstation by 1%-2%.

- ▶ Overcome the Rotating Center of Gravity
- ▶ Effectively reduce torsional stress on the torquetube by 5-10%
- ▶ Reducing torsional deformation of bracket at both ends by 4-7°
- ▶ Decreasing the operating power of the motor and increasing its lifespan



Angle Error Exists



Angle Error Eliminated

SST SERUES SST-1P-TL

ONE PORTRAIT DUAL-ROW LINKAGE SINGLE-AXIS TRACKER

Dual slew-drive mechanical linkage for greater cost-effectiveness

- ▶ Fully fit for 210 module
- ▶ Easy installation & maintenance
- ▶ Cost-effective, stable & efficient system
- ▶ AI algorithm to maximize power generation

Technical Specifications

STRUCTURE	
System type	One portrait dual-row linkage single-axis tracker
Module quantity per two rows	120 PCS(2-1P×60)
Tracking range	±60°(Customized according to project)
Tracking accuracy	±1°
Drive method	Slew Drive

Wind protection	≥18m/s
Rotate to horizontal time	5-6mins
Overload prevention	Yes

ELECTRICAL	
Tracking method	Astronomical algorithm+closed-loop control (AI)
Signal transmission	Wire RS485 or wireless (LoRa)
Drive method	24V DC Motor + Slew Drive
Power supply	AC-powered or self-powered
Backtracking	Yes

ENVIRONMENT & OTHER	
Operating temperature	-30°C to +60°C
Slope tolerance	North-south 10%~20%, East-west no limits
Load design standard	GB,ASCE,BS EN,AS etc



Dual Slew-drive Linkage

Cost-effective Solution with Easy Installation

- ▶ Great transmission efficiency, stable and reliable
- ▶ Each unit can endure higher wind speeds
- ▶ Spline shaft connection for quick installation
- ▶ Cardan Joint connection for higher terrain adaptability



SST SERIES SST-2P

DOUBLE PORTRAIT HORIZONTAL SINGLE-AXIS TRACKER

Greater flexibility for undulating terrain

- ▶ Fully fit for 210 module
- ▶ Easy installation & maintenance
- ▶ AI algorithm to maximize power generation
- ▶ Adapt to various terrains allowing a north-south slope up to 20%

Technical Specifications

STRUCTURE	
System type	Double Portrait Horizontal Single-axis Tracker
Module quantity per two rows	2Px45、2Px30
Tracking range	±60°(Customized according to project)
Tracking accuracy	±1°
Drive method	1 unit

Wind protection	≥18m/s
Rotate to horizontal time	5-6mins
Overload prevention	Yes

ELECTRICAL	
Tracking method	Astronomical algorithm+closed-loop control (AI)
Signal transmission	Wire RS485 or wireless (LoRa)
Drive method	24V DC Motor + Slew Drive
Power supply	AC-powered or self-powered
Backtracking	Yes

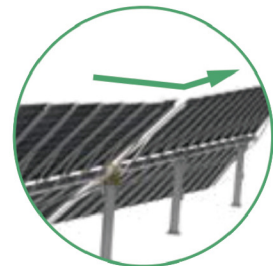
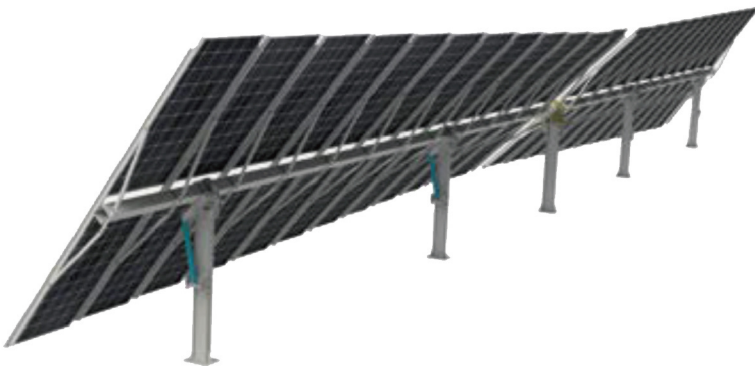
ENVIRONMENT & OTHER	
Operating temperature	-30°C to +60°C
Slope tolerance	North-south 10%~20%, East-west no limits
Load design standard	GB,ASCE,BS EN,AS etc



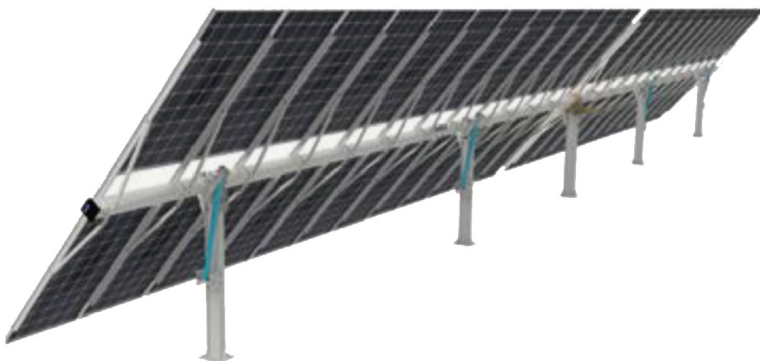
Overcome the Rotating Center of Gravity

Eliminate the angle error at both ends of the bracket, which can increase the power generation of the powerstation by 1%-2%

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- ▶ Effectively reduce torsional stress on the torquetube by 5-10%
- ▶ Reducing torsional deformation of bracket at both ends by 4-7°
- ▶ Decreasing the operating power of the motor and increasing its lifespan



Angle Error Exists



Angle Error Eliminated

SST SERIES SST-2PM

MULTI-DRIVE-DOUBLE PORTRAIT HORIZONTAL SINGLE-AXIS TRACKER

Multi-drive, strong wind-resistance capability

- ▶ Fully fit for 210 module
- ▶ Easy installation & maintenance
- ▶ AI algorithm to maximize power generation
- ▶ Adapt to various terrains allowing a north-south slope up to 20%

Technical Specifications

STRUCTURE	
System type	Double Portrait Horizontal Single-axis Tracker
Module quantity per two rows	2Px45、 2Px30
Tracking range	±60°(Customized according to project)
Tracking accuracy	±1°
Drive method	1 unit

Wind protection	≥18m/s
Rotate to horizontal time	6-7vmins
Overload prevention	Yes

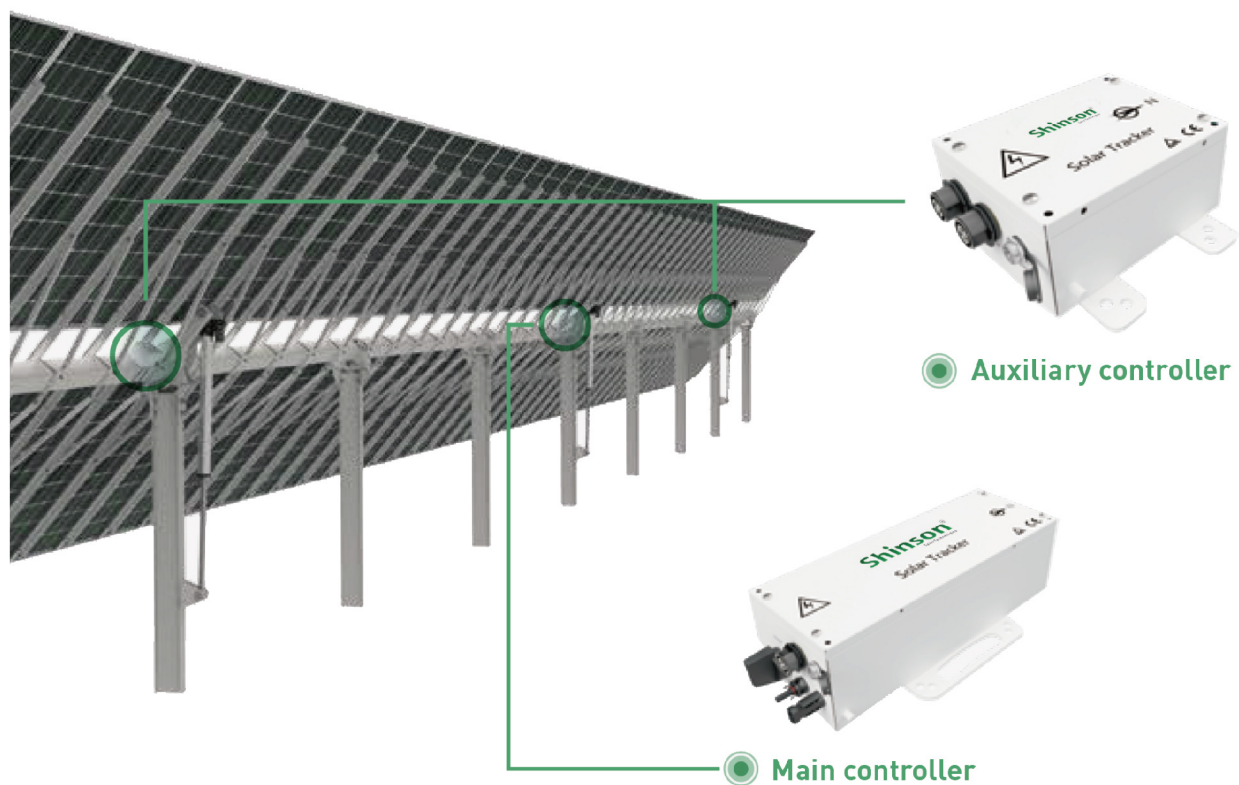
ELECTRICAL	
Tracking method	Astronomical algorithm+closed-loop control (AI)
Signal transmission	Wire RS485 or wireless (LoRa)
Drive method	24V DC Motor + Slew Drive
Power supply	AC-powered or self-powered
Backtracking	Yes

ENVIRONMENT & OTHER	
Operating temperature	-30°C to +60°C
Slope tolerance	North-south 10%~20%, East-west no limits
Load design standard	GB,ASCE,BS EN,AS etc



Electrical Control Linkage

- ▶ Ensure tracking accuracy within 0.5° by main and auxiliary controllers
- ▶ Use electrical control linkage for multi-point closed-loop control
- ▶ Achieve closed-loop control with build-in angle detection sensors for main and auxiliary controllers



SmartTrack

Controller System

Control Equipment

Highly visualized Interface to improve the efficiency of on-site work

Maintenance Mode

Wireless maintenance and commissioning enabled through upper computer software, mobile application, and wireless tools

Mistake-proofing Design

Reduce the site installation error rate and decrease workload by 3-5%

One-to-many Management

Remote O&M of each tracker via web-side display interface

OTA Upgrade

Remote firmware function upgradation

- ▶ IP66 Rated protection level
- ▶ Wide operating temperature range (-30C~60C)
- ▶ Astronomical algorithm+closed-loop control (AI)
- ▶ Built-in tilt sensor, no need for external inclination sensor
- ▶ Low power consumption, daily power consumption around 0.4Kwh/MW

KST Communication Box



Redundancy design of dual wind speed sensors ensures the accuracy of wind speed parameters



Equipped with a user-friendly visualized interface for easy commissioning



SmartTrack One-to-One Controller



Control system	MCU(Microcontroller)
Signal transmission	Wireless LoRa (wired RS485 optional)
Drive method	Linear-actuator or slewing driver
Motor quantity	1 unit
Motor type	24VDC 120W (optional)

Power supply	String-powered supply (AC power supply optional)
Battery type	Lithium Iron Phosphate battery pack (no battery for AC power supply)
Protection mode	Strong wind, snow, and rain
Equipment protection	Overload protection, soft start, fault self-diagnosis

SmartTrack One-to-Many Controller



Control system	MCU(Microcontroller)
Signal transmission	Wireless LoRa (wired RS485 optional)
Drive method	Linear-actuator or slewing driver
Motor quantity	2-3 unit
Motor type	24VDC 150W (optional)

Power supply	String-powered supply (AC power supply optional)
Battery type	Lithium Iron Phosphate battery pack (no battery for AC power supply)
Protection mode	Strong wind, snow, and rain
Equipment protection	Overload protection, soft start, fault self-diagnosis

SCADA Monitoring System



Real-time Monitoring

Remote real-time monitor the operating status of the system through intelligent hardware and software interconnection



Multi-layer Visualization

Data mining and visualization monitoring of layered data by the power station, partition, sub-array, and individual tracker



Accurate Positioning

Quick fault signaling and accurate positioning of fault equipment, timely trouble-shooting to irregularly operating tracker



Risk Alarming

Combined with meteorological data and display extreme weather protection mode at the arrival of high winds, snow, and rain, adjusts the bracket to the ideal angle to resist extreme weather