LIANSTOR ENERGY

Product Brochure

SZGZ-X

Solar Tracking Racking

Dual-axis sun tracking keeps the whole array facing the sun

WZPV-SZGZ-X



SZGZ-X WZPV-SZGZ-X

Two Axes Follow the Sun, the Whole Array Turns Together

Horizontal rotation and tilt adjustment track the sun's position together. A single column carries the load centrally; the rectangular frame matches the selected modules.

Two axes follow the sun

The azimuth axis follows the sun's east-west movement and the tilt axis its elevation change, reducing incidence-angle deviation of a fixed orientation.

Single-column central load bearing

The upper frame carries the rectangular array with concentrated ground support points; the site also reserves space for rotation, tilting and maintenance.

8-16 position array configuration

Choose the load-bearing frame by module quantity, size, mass and clamping requirements, with the matching generation and electrical plan.

Platform supports off-site O&M

Check status, angles and alarms first, then authorize stop, self-check or angle setting - reducing troubleshooting by phone description alone.

Azimuth and Tilt, Each with Its Own Drive



Azimuth rotation

The drive at the column top turns the whole array's horizontal orientation.

Tilt change

Another drive axis adjusts the tilt angle to follow the sun's elevation.

Load bearing and cables

Frame, central connection and moving harnesses together meet assembly and motion clearances.

Reference photos of the product series' structure. Actual drives, connections and harness routing follow the order's general assembly drawing.

SmartTrack 3.0 Manages Tracking and Protection

Forms the target posture from location, time and device state and drives both axes; normal operation, parking, protection and maintenance share one control process.

Computes the solar target

Location and time inputs calculate solar azimuth and elevation - no manual repeated orientation adjustment.

Executes the two axes separately

Azimuth and tilt act independently; position feedback and limit inputs participate in motion control.

Condition-triggered protection

When weather and device state meet trigger conditions, the unit enters the stow posture; checks and self-tests run before recovery.

Views and handles anomalies

The platform links device status, angles and anomaly information; authorized personnel can operate remotely or schedule site service.

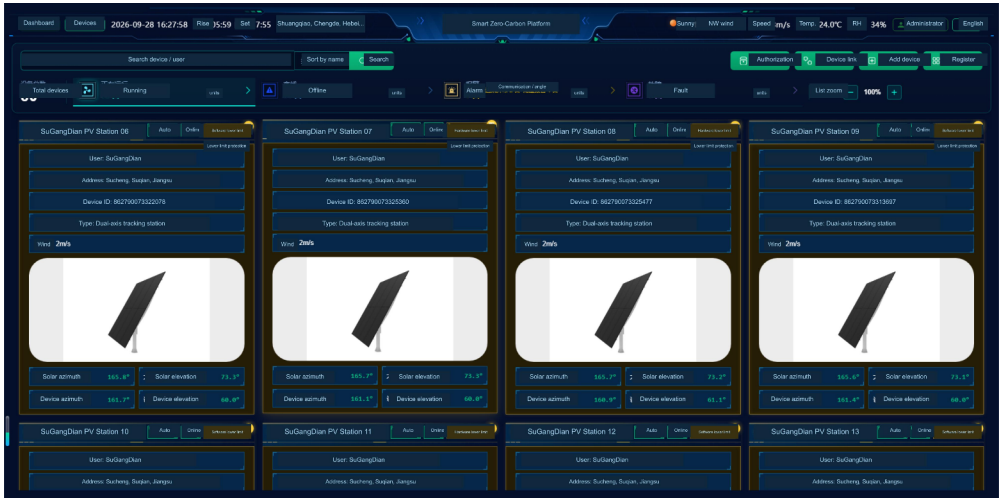
Different Operating Conditions, Different Strategies

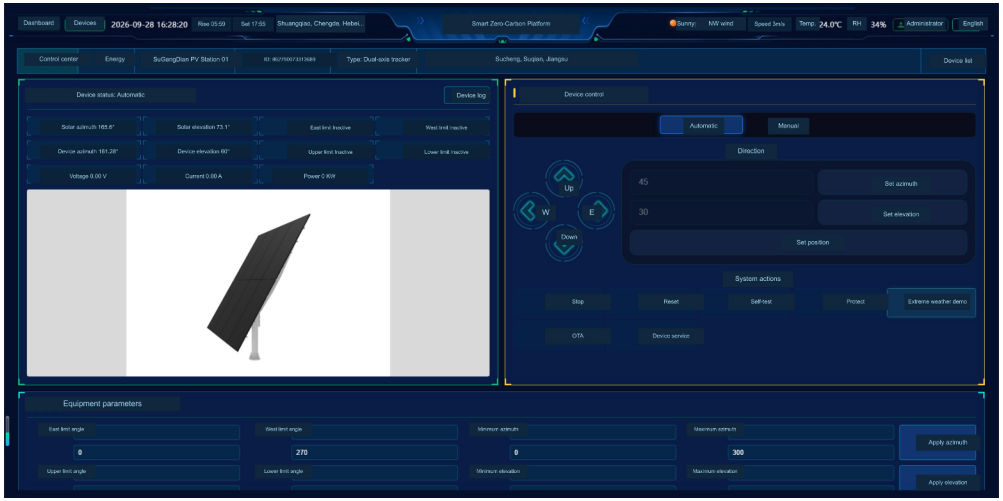
Item	Content
Daytime tracking	Both axes adjust orientation; follows the sun within the set range.
Night sleep	Executes parking and sleep; checks and recovers once wake conditions are met.
Weather protection	Wind, snow and similar conditions trigger the corresponding protection; self-check per the process after the environment recovers.
Manual angle setting	Authorized azimuth or tilt setting for commissioning and maintenance preparation.
Self-check and maintenance	Verifies motion, feedback and end points; stop, isolate and secure reliably during service.
Operation demo	For controlled demonstration; ensure personnel and full motion space are safe before demonstrating.

Motion range, protection thresholds and enableable modes follow the delivered control version; storage and other coordination require the corresponding electrical equipment.

See the Fleet Centrally, Check Each Unit

The PC platform and mobile client connect device status, operating records and authorized operations, supporting remote judgment first, then scheduled site maintenance.





Device list

View online and operating status with the current position, and locate devices needing attention.

Status and operations

View solar and device angles, limits and electrical data; with authorization, set angles, stop, self-check and reset.

Remote maintenance

Judge anomalies using connectivity and operating records, and perform maintenance operations by permission.

Interfaces are functional examples; data is not measured from a project. Electrical data must match metering connections; remote commands are enabled by account permission.

SZGZ-X WZPV-SZGZ-X

Independent Tracking Unit for Distributed Energy Use



Parks and enterprise sites

Place distributed PV units on unshaded ground that preserves motion clearance.

Public facilities and education

For visible sun-tracking displays, energy education and public load support.

Grid-connected or storage projects

Select inverter, metering or storage equipment by grid conditions and loads.

Scene images are illustrative. Site foundations, distances, drainage and protection settings follow the engineering design.

Choose Modules First, Then Match Racking and Electrical

Item	Content
Model and quantity	X is the module quantity; 8-16 positions configurable.
Column selection	Reference height 2.1 m or 2.6 m, corresponding to the array's mechanical drawing.
Azimuth / tilt	Specification table gives 0-240° / 0-85°; site limits follow the delivered version.
Tracking accuracy	Scheme nominal ±0.5°.
Dual-axis motors	2 DC gear motors; reference components 24 V, 91 W, 120 N·m.
Control interfaces	Position feedback, limits, positioning time, weather and companion communication.
Mounted power example	650 W modules, 8-16 pieces, a 5.2-10.4 kWp example - not a racking generation rating.

Different module quantities, sizes and masses need corresponding load-bearing and electrical plans; component parameters never substitute for system performance.

Racking, Modules and Electrical, Each Listed in the Supply List

Racking system

Lists column, load-bearing frame, azimuth / tilt drives, controller and configured sensors. Racking excludes PV modules.

Module matching

Provide module model, dimensions, mass, mounting holes or clamping range; then confirm positions and racking configuration.

Electrical matching

Module strings, inverter MPPT, input current and grid requirements are calculated together; storage, metering and lighting are provided per the order.

Supply scope, electrical accessories and motion limits are defined in the order and delivery documents.

LIANSTOR Energy | Engineering Support and After-Sales

Selection support

Define the load-bearing structure and motion space from site location, module quantity, module size and foundation conditions.

Control and commissioning

Configure both axes' direction, position calibration, software limits and protection conditions; complete platform connection and authorized-operation verification.

Maintenance and spares

Match spares to the as-built BOM; locate faults with operating records, alarms and site inspections, keeping repair and upgrade records.

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LIANSTOR ENERGY

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E Efficient

A Affordable

N Net-positive