TG8-V3

Solar Tracking Racking

Powerful rotation, rear actuator, dual-side damping

WZPV-SZTZ-8



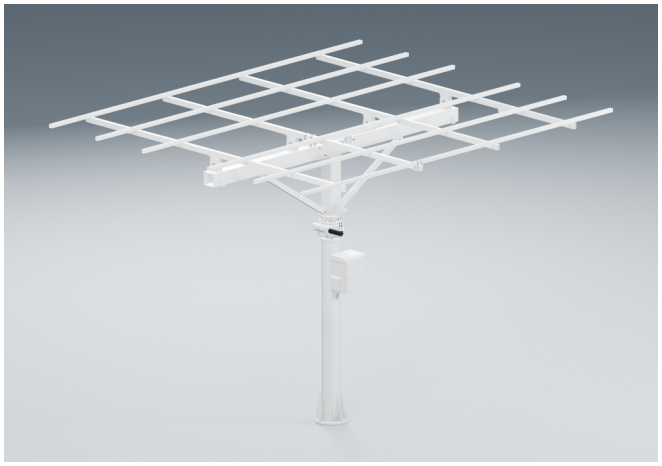
Before Start-Up, Match Drawings, Components and Site

Check item	Start-up requirement
Drawings and revisions	General assembly, component BOM, foundation, anchor, tightening, lifting and wiring documents confirmed.
Component check	1 azimuth slew drive, 1 rear actuator, 2 dampers and all structural parts / connectors.
Foundation and motion space	Foundation acceptance complete; verify the full motion envelope, adjacent equipment, cables and maintenance clearances.
Tools and work conditions	Specified lifting, temporary support, tightening and testing tools available; site conditions permit the work.
PV modules	Modules supplied separately; size, mass, clamping zone and electrical configuration already matched and confirmed.

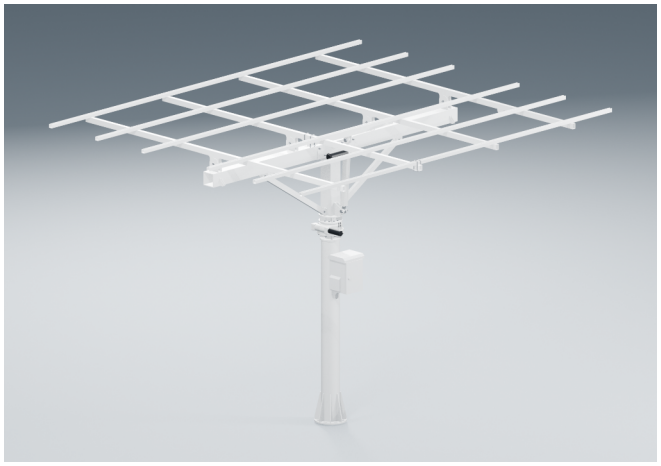
Assembly Sequence Overview



01 Column positioning



02 Slew and frame connection



03 Rear actuator connection

During slew and frame connection the moving structure must be supported per the construction plan; after the actuator connection, install the two side dampers.

01 | Column Positioning and Fixing



Verify installation orientation

Confirm column orientation, flange and mating faces against the project foundation and general assembly drawings.

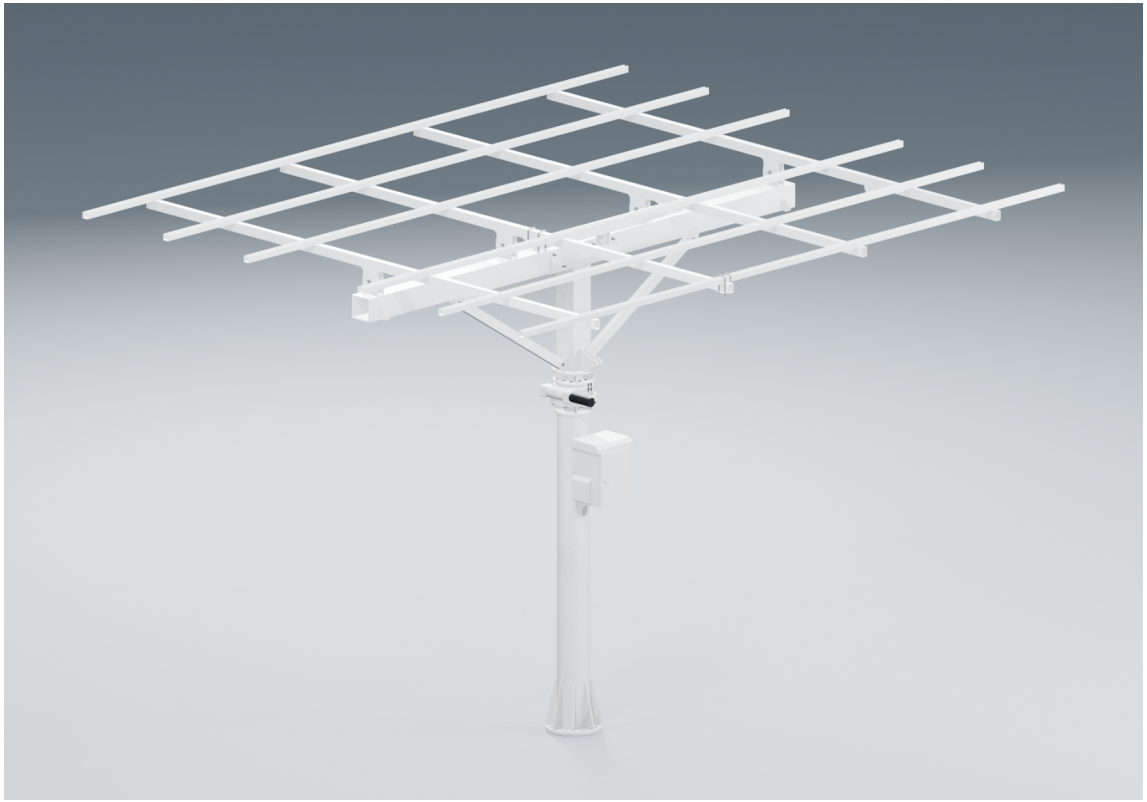
Align and fix

Recheck plumb, datums and contact faces; tighten to the approved grade and torque.

Next step

Accept the foundation and column connection; anchors must never be located from model hole positions alone.

02 | Azimuth Slew Drive and Load-Bearing Frame Connection



Match the mating faces

Match by hole pattern, thread depth and assembly orientation; clean the contact faces.

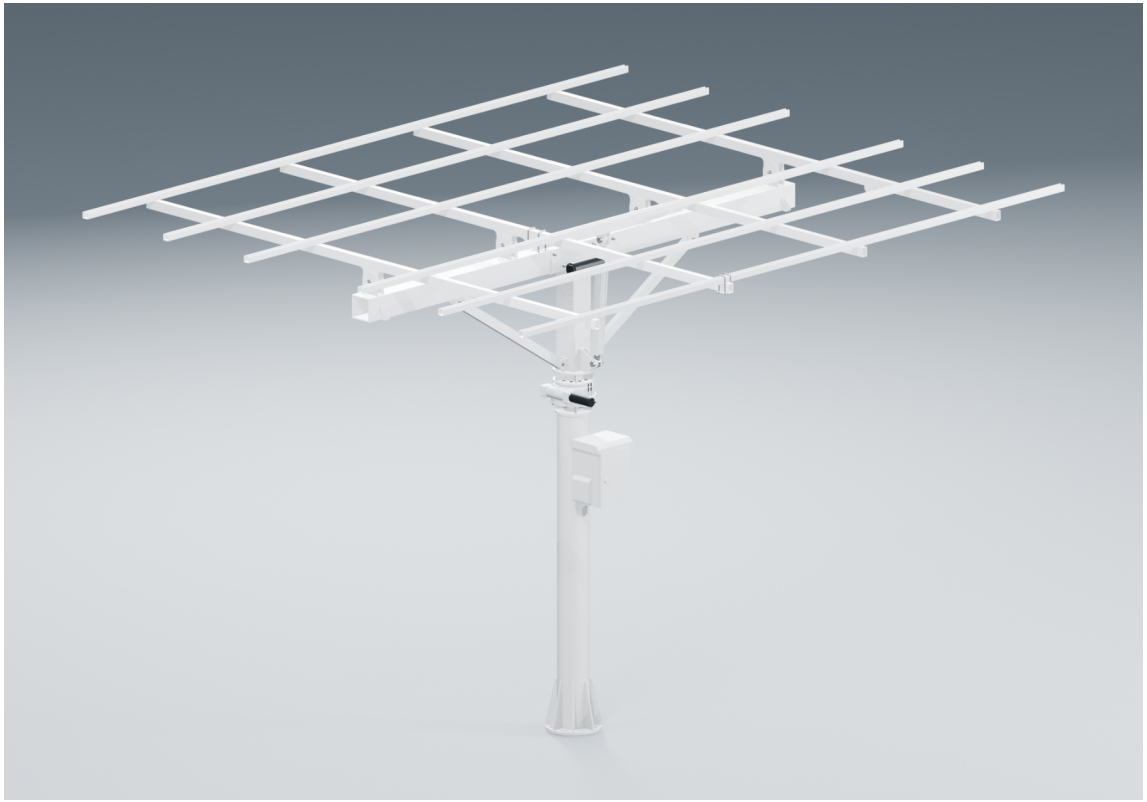
Keep temporary supports

Lifting mass, points and support measures follow the specific plan; avoid side loads on the actuator.

Check connections

Apply tightening marks; check rotation space and cable outlets.

03 | Rear Actuator Connection



Match both ends correctly

Front ϕ26 fixed hole, rear ϕ25 spherical bearing; positions and mating parts confirmed per the general assembly.

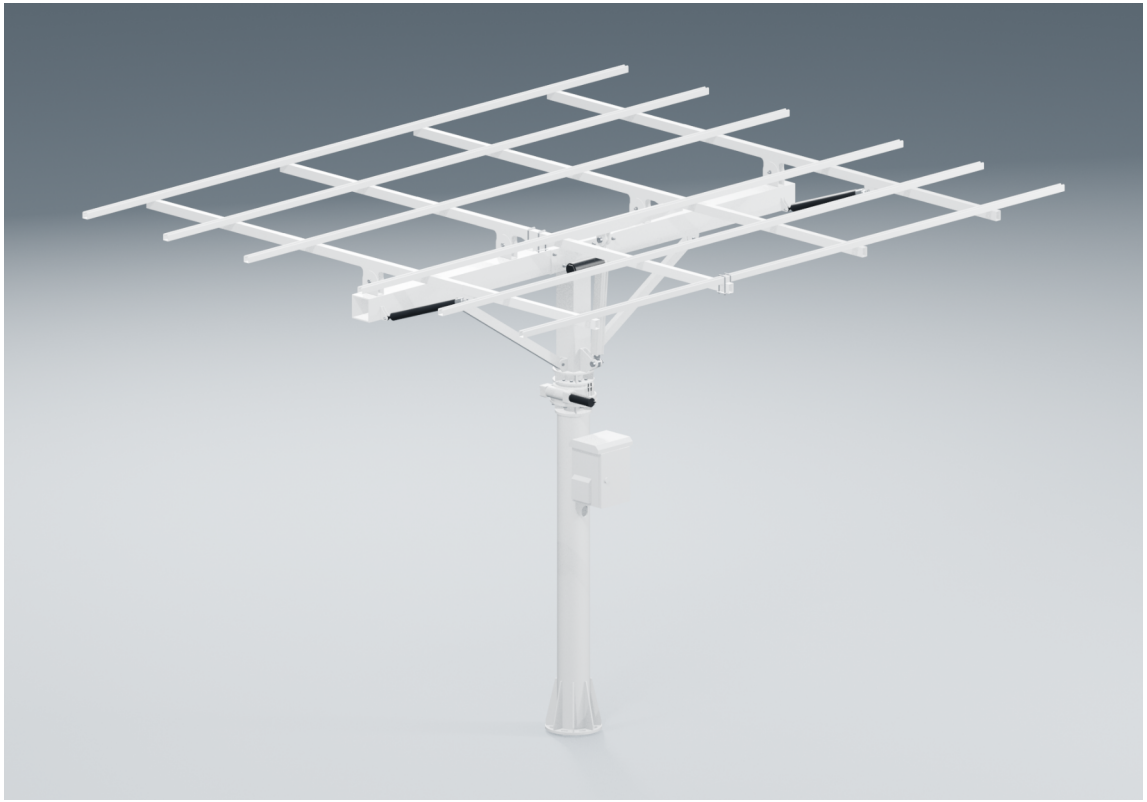
Pins and locking

Support the frame before connecting; fit all pins, spacers and locking parts, and confirm permitted rotation.

Waterproofing and stroke

Install inverted per the source drawing and keep the breather valve; 800 mm is not a universal starting installation distance.

04 | Side Damper Connections



980 mm is the series source drawing's transport / test centre distance; it is not a universal site installation dimension.

One damper each side

Check connection positions and installation centre distance against the BE12 supplied termination drawing.

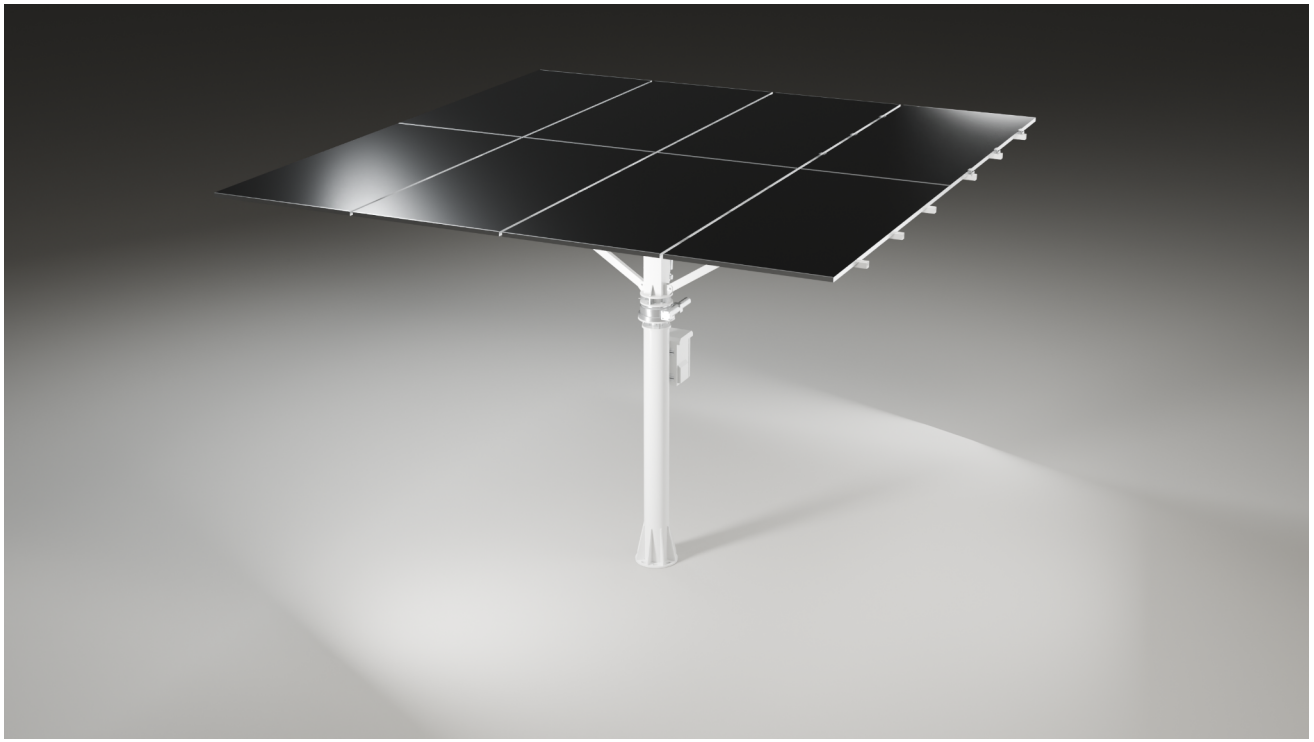
Check rod ends and terminations

The S30 series drawing requires rod ends up; the ball-pin torque applies only to its corresponding termination.

Manually check the motion range

Confirm no interference or hard stops; keep temporary supports until installation acceptance.

05 | Module Installation and Moving Cables



Install modules per the manufacturer's requirements

Match clamping zones, clamps, tightening torques and module gaps; avoid concentrated eccentric loads.

Grounding and cable routing

Connect per the electrical drawings, allow motion margin for both axes, and secure abrasion points.

Final mechanical check

Check connectors, locks, motion space and construction tools before energizing.

Racking supply excludes PV modules. The modules shown illustrate the completed mounting relationship.

Complete Mechanical Release Before Dynamic Commissioning

Without mechanical release, no jogging or automatic operation; driving is forbidden with temporary supports in place.

Order	Release check	Confirmation requirement
01 Load-bearing connections	Check the permanent load path, mating faces, pins and locks.	Connection and tightening acceptance passed.
02 Load check	Confirm the permanent mechanism reliably carries the load; check the actuator for side loading.	Conforms to the general assembly and construction plan.
03 Temporary supports	Approved by the site lead; unload and remove temporary supports per the plan.	Record and re-verify after completion.
04 Motion space	Check both axes' ranges for personnel, tools, cable interference and support obstructions.	Motion range cleared.
05 Commissioning permit	Site lead confirms mechanical release and permits low-speed jogging axis by axis.	Signed and handed to commissioning personnel.

Electrical Wiring: Verify Power and Feedback Separately

Detailed pins, wire gauges and interfaces are in this model's separate technical datasheet; verify against the delivered harness and terminal diagram.

Circuit	Wiring basis	Check focus
Power	This model's component drawings and approved terminal diagram	24 VDC polarity, protection and rated current.
Slew feedback	Hall A/B, feedback supply and connector pins	Identify by pin position, not by wire color alone.
Actuator feedback	Dual Hall, 5-28 V feedback supply	Never mix the feedback circuit with power lines.
Protective grounding	Approved electrical drawings and site test requirements	Structure, control box, grounding connections and waterproof entries.
Communication and weather	Delivered controller I/O and communication definitions	Verify actual inputs; do not enable unconfigured protection chains.

Low-Speed Commissioning Axis by Axis, Then Establish Position Datums

Order	Commissioning action	Pass criteria
01 Energization check	Re-verify supply, terminals, waterproofing, protection and service mode.	No abnormal alarms; automatic motion forbidden.
02 Azimuth jogging	Small-range low-speed motion; verify forward/reverse direction and feedback.	Motion matches counts, no interference.
03 Tilt jogging	Small-range low-speed motion; verify direction, feedback and terminations.	Motion matches counts, no jamming.
04 Zero position and limits	Set position datums and operating range per the companion controller process.	Limit stops and parameter saving effective.
05 Mode verification	Test in turn: automatic, parking, configured weather protection and abnormal pause.	Actual motions conform to the approved strategy.

Acceptance and Handover

Handover content	Record requirements
Mechanical installation	Foundation, connection, tightening, anti-corrosion, locking and full motion space inspection records.
Electrical and control	Grounding tests, wiring, zero position, limits, parameter backups and firmware versions.
Operational verification	Two-axis motion, feedback, night parking and protection strategy test results.
Software and permissions	Account roles, communication configuration, alarms and data mapping; operator training completed.
Documents and after-sales	Device serial number, drawings, BOM, maintenance plan and contact details.

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